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National Institutional Ranking Framework Perception Score: A Storm in a Teacup?

M Bhaskara Rao*

Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?

T.S. Eliot, The Rock (1934)

Academicians, administrators, policy-makers, regulators, researchers, journalists, and others have a paradoxical relationship with rankings. Rankings are good as they are informative and objective. Rankings are bad as they are biased and subjective. Worse, sometimes rankings are alleged to be rigged, managed, or manipulated. The foundation for rankings, as is known, is comparisons. Institutions would like to compare themselves with peers to determine who is good at teaching-learning, research, student outcomes, inclusivity, sustainable practices, and perception or reputation. Deep down, our passion for ranking is driven by our love for comparisons. Thus, whether we like rankings or not, they are here to stay. Yet, we fear rankings. Question their objectivity. Question their meaning – whether it reflects an institution's real standing, values, and achievements.

After the announcement of India Rankings 2024, a storm is brewing in a teacup on perception scores. Criticism is pouring on perception scores, and some are even casting aspersions on NIRF about the perception scores' veracity, transparency, and objectivity. NIRF has relatively less weightage for perception or reputation scores, i.e., 10 percent. This is against 45 percent in the QS World University Rankings for Academic and Employer reputation scores and the Times Higher Education World University Rankings 33 percent. The process followed by NIRF is as transparent as that of the QS and the THE. The weightage for perception score in NIRF is thus far lower than that of international ranking agencies. Thus, the criticism of NIRF perception score by various stakeholders may not be entirely justified.

Then, why is this storm in a teacup?

Peer perception scores are inherently subjective. They can vary widely based on individual biases, bounded rationality of the respondents, limited information, or personal experiences rather than objective quality measures. Perception as a metric may not accurately reflect true academic or institutional excellence, as it can be influenced by factors unrelated to educational quality, such as visibility or historical reputation. Nevertheless, it indicates the reputation enjoyed by the institution among academics and employers. Hence, a reputation or perception score as a part of the institution's ranking is welcome despite its subjectivity and variability.

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Although peer perception is a component of the NIRF rankings, its relative weight compared to other factors like teaching (30%), research (30%), and graduation outcomes (20%) is not disproportionately high. Institutions have a strategic choice - to invest in improving their image among peers or make more substantive improvements in teaching-learning processes, infrastructure, research, or student outcomes. In the latter case, the investments would yield major gains in perception over a medium to long term. Are the reputation scores of QS and THE more objective than the NIRF score? There is no evidence to conclude affirmatively. In the case of QS and THE, the sample size for reputation scores is a couple of lakhs, while NIRF has a sample size of around 25,000. The issue in all these surveys is how many respondents rate an institution. It is anybody's guess, and rightly so. Perception or reputation scores impact rankings**,** but we have to live with these scores.

Higher Educational Institutions might attempt to influence peer perception through aggressive promotional activities and collaborations with high-profile institutions and employers, or some may even resort to lobbying clandestinely. This may give some short-term gains but detract such institutions from the core mission of quality education and research. The pursuit of higher peer perception scores might lead to a focus on short-term gains or superficial changes. However, pursuing a higher ranking is a long-term goal built on meaningful improvements in education quality, research intensity, graduate outcomes, and inclusivity. The "publish-or-perish" (PoP) motto first arose as a societal convention that dictated attaining an intangible reputation within the academic community. Nevertheless, it has transformed into a numerical indicator of production on the industrial production paradigm. Once conventional reputational norms interact with new reputation or perception measurement methods, they get involved in a "perverse" dynamic that produces mostly unpredictable outcomes. Hence, while there is potential for gaming the system, such institutions will not be able to sustain gaming gains in the long term.

A singular focus on peer perception can overshadow other important aspects of institutional excellence critical to student success and societal impact. Rankings should ideally reflect a balanced view that includes multiple quality dimensions rather than overemphasizing peer opinion, which is just one of many indicators of a university's standing. Excellence in all other metrics drives peer perception and not vice versa. Hence, institutions should focus and invest their resources in excelling in metrics other than perception. Perception score should be treated as a derived rather than a direct metric. Institutions that understand the importance of holistic evaluation would do better than those with a narrow approach to rankings.

While reputation and peer perception are important, they should not be the sole criteria for evaluating the quality of an institution. Quality education is fundamentally about the impact on students and society. This impact may not always be fully captured by how peers view an institution. Nevertheless, perception or reputation is an important indicator. Some criticize the perception scores based on the age of the institution. From their perspective, older institutions should enjoy higher perception scores. This is wishful thinking. Younger universities

Figure 1: Perception Score of Top 40 Law Institutions - NIRF 2024

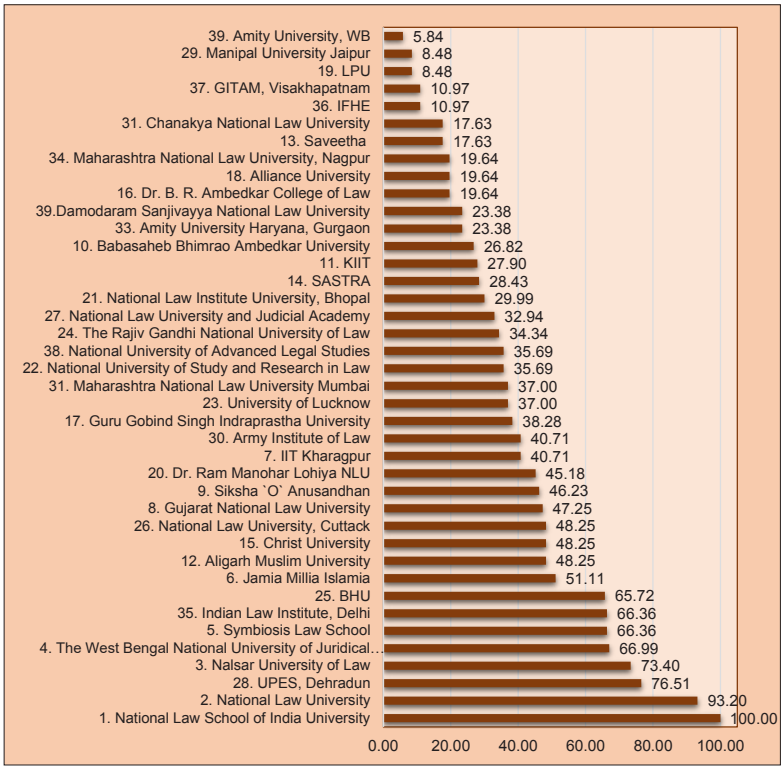
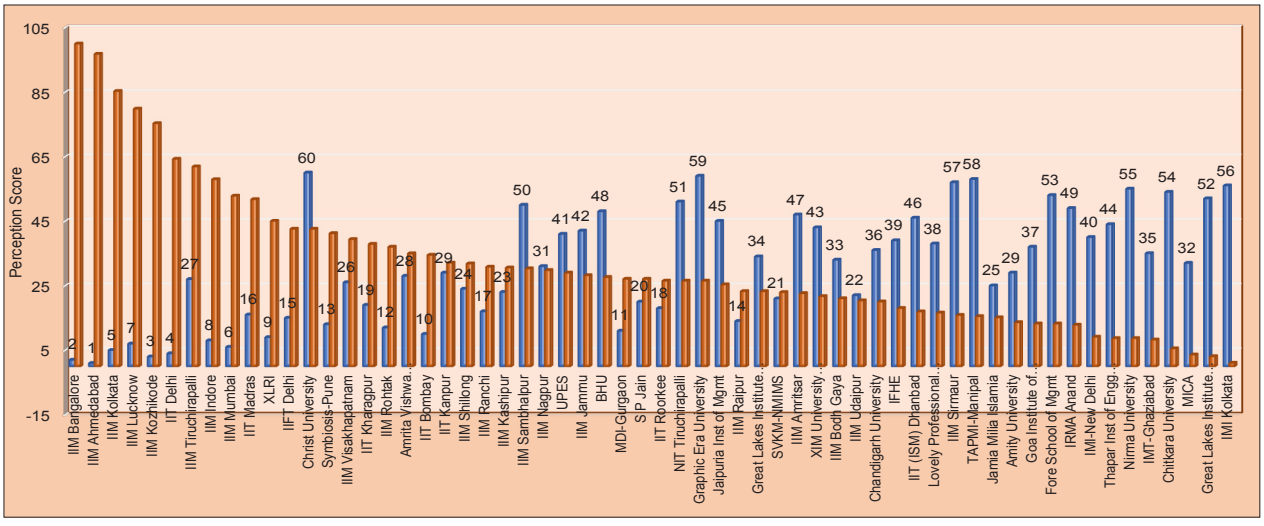


Figure 2: Perception Score of Top 60 Management Institutions - NIRF 2024



position themselves better and race past the older universities. Nanyang Technological University Singapore, established in 1981, enjoys an academic reputation score of 91.9 and is ranked 15 by the QS World University Rankings. QS ranked Al-Azhar University, Cairo, established in 970 ADS, is ranked in the 1001-1200 band with an academic reputation score of 13.1. Institute Polytechnique de Paris, France, established in 1160 and 1250, is ranked by QS at 46 and has an academic reputation of 44.7. The Indian Statistical Institute (ISI), established in 1931, is among the best and has a perception score of 27.37 in the NIRF 2024 overall ranking. Institutions that have come up much later have higher perception scores than ISI Kolkata. That does not undermine the quality and stature of the institutions cited above. ISI Has never been at the forefront of seeking public perception, as it has always focused on pursuing academic excellence, and rightly so. Perception scores of top 40 law institutions and top 60 management institutions in NIRF 2024 are presented in Figure 1 and Figure 2. We cannot attribute any correlation between the perception score and the institution's rank. Reputation or perception always played a role in ranking educational institutions. One need not read too much into it.

Conclusion

The criticism of peer perception in NIRF rankings might be seen as "a storm in a teacup" because it can lead to an outsized focus on reputation management rather than genuine excellence in academics, research, graduate outcomes, and other key indicators of institutional performance. While peer perception does have a role in assessing the quality of institutions, it should be considered in balance with other, more objective measures. Institutions should be cautious not to over-prioritize perception scores at the cost of their core mission of education, research, graduate outcomes, inclusivity, and service to society. Further, not everything related to rankings needs to be transparent as long as it is measured objectively. For now, there is no reason to suspect the objectivity of NIRF on perception score. There is no need for worry or fear, as the current debate is just a storm in a teacup. Let us all stay firm with the NIRF and let it grow from strength to strength. As George Box said, "All models are wrong, but some are useful." Despite all the criticisms, NIRF's India Rankings are still useful. They are awakening the otherwise sleepy higher education ecosystem in India.

India Rankings brought in behavioural changes in higher education institutions. Institutions are now driving their human resources to be goal-oriented or outcome-oriented to achieve their targeted rank. However, leaders of these institutions should note that goals may cause systematic problems if focused narrow, promote unethical behaviour to achieve results at the cost of means, drive increased risk-taking, impact cooperation and collaboration negatively, and affect motivation. Hence, leaders must use care when applying goals in their institutions to achieve higher rankings.

It is not enough for HEIs to do their best; they must know what to do and then do their best. India Rankings tell them just that: what to do to achieve excellence. ❑

Artificial Intelligence in Education: Navigating Challenges and Seizing Opportunities

Mahima Rana*, Er Shaurya Vir Singh Pathania and Kulwant Singh Pathania*****

Artificial Intelligence in Education (AIEd) has rapidly emerged as a focal point within educational research. Educators worldwide are increasingly leveraging AI to innovate their teaching practices. However, current applications often remain limited in scope and basic in nature. To realize its full potential, AIEd must undergo significant advancement.

AI offers numerous advantages as a supplementary tool for pedagogical techniques. To explore the breadth of AIEd, this paper presents various examples from diverse educational institutions globally, showcasing the diverse applications of AI. We delve into the opportunities and challenges associated with AIEd, providing suggestions to optimize AI usage in higher education. By addressing the obstacles hindering AI adoption and mitigating the risks, we aim to enhance the effectiveness of teaching and maximize the impact of AI in higher education.

The use of technology has increased tremendously in every field and the education sector remains no stranger to this development. Every technological innovation is done with the main aim of assisting manual labour to improve productivity and outcomes. Alan Turing in the 1950s described a system as 'Artificial' or 'Intelligent' if it passed an imitation game in which a human listener has to distinguish between a conversation with a human and a machine. If the listener fails to identify a difference, the system is to be described as an 'Intelligent' or 'Artificial' System (Russell & Norvig, 2010). The term Artificial Intelligence (AI) was first used in 1955 by John McCarthy, a Dartmouth math professor (Sollosy & McInerny, 2022). AI is a booming technological domain capable of altering every aspect of our social interactions (Bostrum, 2017). It has been seen that the use of Artificial Intelligence in Education (AIEd) has initiated new teaching and learning solutions that are currently being modified and restructured in different contexts (Bostrum, 2017). Though welcomed by academicians, students, industries and other stakeholders, AIEd's scope remains limited. However, AIEd is a change which is happening in real-time and research regarding its opportunities, challenges, risks and sustainability is immensely required.

The increasing applications of AIEd demand interdisciplinary approaches, while most AI research is carried out only in STEM fields (Zawacki-Richter, Marin, Bond & Gouverneur, 2019). Research on AIED has surged in recent years, yielding a substantial body of work exploring various aspects of these applications, including design, effectiveness, and outcomes (Chiu et al., 2023). Recent statistics indicate that 43 % of college students in the US use AI tools like ChatGPT and half of instructors employ AI to develop their lessons. Adaptive learning enabled by AIED has been shown to improve student test results by 62 %, while AI usage, in general, enhances student performance by 30 % and reduces anxiety by 20 % (Businessolution.org, 2023). 60% of current occupations have the possibility of being automated in the next 10 years (Bughin, Seong, Manyika, Chui, & Joshi, 2018). Given this trend, companies are going to seek employees with an understanding of AI concepts and methods, who can deploy this knowledge and skills to manage workplaces where AI comprises major aspects (Ransbotham, Kiron, Gerbert, & Reeves, 2017).

Russell & Norvig, 2010 stated that "The study [of Artificial Intelligence] is to proceed based on the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to stimulate it". The study of Optimum use of AIEd requires state-of-the-art infrastructure with users who are well-versed in its usage (Akinwalere & Ivanov, 2022). AIEd can offer many benefits such as increased outcomes, increased access, increased retention, lower cost and decrease time to completion (Bates, 2018).

Since the students of today will work in a future in which AI is the reality, it is important that

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our educational institutions expose students to its possibilities and actively use the available technology (UNICEF, 2020). A review of the literature shows that a lot is left to be learned about how AI can be efficiently used. This paper aims to study the extant literature on the use of AI in higher education. The paper shall highlight the benefits of using AI in higher education and the opportunities and challenges of AIEd. Suggestions shall be provided to overcome the challenges of efficiently using AI in higher education for the sustainable growth of all stakeholders. The objectives of this research are:

a) To conduct a thorough literature review on AIEd, identifying key trends, methodologies, and findings.

b) To assess the current and future applications of AI in higher education, identifying both its potential benefits and challenges.

c) To develop strategies to optimize AI integration in higher education, enhancing productivity, efficiency, and student outcomes.

Literature Review

Salmon (2000) argued that offline and online teaching collaborations cannot operate automatically and should be moderated. *Kübler et al. (2015)* and *Andrews et al. (2016)* stated that AI can be effectively used to assist those with disabilities using human-AI interactions. *Luckin et al. (2016)* advocated the importance of building inter-stakeholder partnerships between AI developers, educators, and researchers to develop effective AIED applications. *Chassignol et al., 2018* and *Perrotta & Selwyn, 2020* found that mostly, AIED applications are developed to support teaching and learning activities such as content preparation and dissemination, interactions and collaboration, and performance assessment. *Contact North (2018),* a Canadian Not-for-Profit online learning society, found that "there is little doubt that [AI] technology is inexorably linked to the future of higher education". *Tegmark (2018)* argued that the level of Artificial Intelligence remains limited and development to the level of "Artificial General Intelligence, where processing capabilities of machines match the cognitive capabilities of humans" remains to be achieved. *Alexander et al. (2019)* found that educators at universities perceived AIEd to assist tremendously in the assessment of students providing feedback and generation and testing of scientific hypotheses "at least as well as humans can". *Zuboff (2019)* identified four key applications of AI in teaching and learning: Profiling and prediction, intelligent tutoring systems, assessment and evaluation, adaptive systems and personalization. *Chen, Xie, Zou, & Hwang (2020), Hinojo-Lucena, Aznar-Díaz, Cáceres-Reche, & Romero-Rodríguez (2019)* and *Zawacki-Richter, Marín, Bond, & Gouverneur (2019)* highlighted the lack of educational perspectives in AIEd. *Perrotta & Selwyn (2020)* focused on the challenges related to the application of deep learning in education, including concerns about data quality, the reductionist approach of deep learning-based applications, and the integration of educational knowledge in application development. *Maghsudi et al. (2021)* highlighted issues encompassing technical aspects (e.g., content production and recommendation), personal aspects (e.g., lifelong learning, assessment and evaluation, incentives, and motivations), and social aspects (e.g., learning networks and diversity and fairness of algorithms) in the development of AIED.

Artificial Intelligence in Higher Education

The application of Artificial Intelligence in Education (AIEd) is rapidly transforming the landscape of learning. AI algorithms and educational robots are becoming increasingly integrated into learning management systems, providing significant support for a broad range of teaching and learning activities (Costa et al., 2017; García et al., 2007).

This trend aligns with India's New Education Policy 2020 (NEP 2020), which emphasizes the use of AI at all educational levels. The goal is to equip students from a young age for an AI-driven future. This includes integrating topics like artificial intelligence, 3D machining, big data analysis, and machine learning into undergraduate programs to foster industry-ready graduates. Universities will also offer dedicated doctoral and master's programs in core areas like machine learning, while colleges might provide targeted training in specific tasks like data annotation, image classification, and speech transcription, thus supporting the overall AI ecosystem (Mehra, 2020).

To truly understand the vast scope of AIEd, specific examples from various institutions around the world utilizing AI in diverse fields of higher education are cited here.

Georgia State University, Atlanta, Georgia- Pounce

Georgia State University, Atlanta, Georgia has developed an AI-powered Chatbot "Pounce" to answer queries of students during the admission process to help decrease the student dropout ratio post-admission, or "summer melt". The interaction takes place via text messages. Using Pounce, the University reduced its dropout percentage by 20% by answering over 2,00,000 questions (Alexander et al., 2019).

iFlyTek

iFlyTek offers intelligent assessment systems tailored for various grading scenarios, including the national college entrance examination in China (iFlyTek, 2024).

Khan Academy - Khanmigo

Khan Academy offers Khanmigo, an AI tutor harnessing GPT-4 capabilities, delivering personalized learning support and intelligent feedback across various subjects, including mathematics, programming, and language learning.

Language-teaching Social Robots

In the realm of educational robots, SoftBank Robotics Nao and Pepper robots are developed to serve as language-teaching social robots (Belpaeme & Tanaka, 2022). In January 2018, Microsoft Asia Research signed a strategic cooperation agreement with Pearson Group to further solidify the cooperation between AI and English education. Previously, the two sides jointly launched "LongWen Xiaoying", an artificial intelligence-driven interactive English learning application. Acquiring foreign language skills is crucial as it applies to all ages and education levels, from Key Stage 12 to Higher Education and Lifelong Learning (Pearson, 2021).

Learning Management Systems (LMS)

AI-powered learning management systems (LMS), such as Absorb LMS and Docebo, deliver multiple AI capabilities to support teaching and learning activities, such as intelligent content creation, administrative task automation, and personalized learning (Leh, 2022). MIP Politecnico di Milano Graduate School of Business- FLEXA

MIP Politecnico di Milano Graduate School of Business in collaboration with Microsoft is in the process of developing a new digital platform powered by Microsoft Azure and AI called FLEXA. The platform is being developed to enable students to assess their professional skills and provide them with personalised content to help fill skills gaps between their career goals and existing studies. FLEXA helps map "personalised learning pathways" that cater to diverse assessment criteria and time availability of each student. FLEXA is also intended to address the needs for lifelong learning (Alexander et. Al., 2019).

Rensselaer Polytechnic Institute, Troy, New York – Immersion Lab & Educational Surveillance

Rensselaer Polytechnic Institute uses a 360^{o} Immersion Lab, an AI-driven projection technology which provides a realistic projection of cities to help students "practice conversational skills, improve their vocabulary, pronunciation and cultural knowledge". Students participating in the immersion lab master the language twice as quickly as students in traditional classrooms (Janalta Interactive, 2021).

Automated systems are already being used to monitor student participation and expressions using face recognition technology in classrooms (Intelligent Classroom Behaviour Management System, Smart Campus), which are displayed to the teacher on a dashboard. This is an example of educational surveillance (Janalta Interactive, 2021).

University of New South Wales, Sydeny- QBot

Professor Kellerman used Microsoft Teams and Microsoft Stream to develop an automated learning system for students of engineering at the University of New South Wales (UNSW) in Sydney. A Question Bot, or QBot was used for assignment of queries and questions of students to respective teaching assistants (UNSW School of Computer Science and Engineering, 2021). This question-and-answer collection provided a data base to the QBot for answering students' questions and thus built a comprehensive Knowledge Base.

Washington State University, Pullman, Washington- AI-driven Explore Platform

Washington State University, Pullman, Washington has collaborated with Cialfo, an EdTech Start-Up, with a view to increase outreach with international high school students. "Cialfo creates a network that brings universities, high

school counsellors, parents and students together throughout their recruitment journey and is used by students across 100 countries" (Akinwalere & Ivanov, 2022).

Opportunities of AI

While human intelligence remains unparalleled in its breadth and depth, the potential for human learning to evolve is undeniable. Artificial intelligence offers a promising avenue to augment the teaching-learning process, empowering educators to enhance their instructional methods. Although AI presents certain challenges, the immense opportunities afforded by machine-based learning cannot be overlooked.

Personalised Learning Experience

Educators worldwide prioritize tailoring instruction to meet individual student needs. AI offers a powerful tool for creating personalized learning pathways based on each student's unique learning style and pace. By harnessing AI technology, educators can provide targeted support to struggling learners, ultimately achieving precision education (Lin & Lai, 2021; Lin et al., 2021).

AI can assist teachers in adapting their lectures to individual needs, reducing their workload and allowing them to focus on more impactful instructional strategies. AI systems are particularly valuable for learners with special educational needs, offering immediate, personalized instruction and feedback aligned with specific educational strategies (Hooshyar et al., 2015).

Companies like Content Technologies and Carnegie Learning are developing intelligent instruction design platforms that utilize AI to deliver personalized learning, testing, and feedback for students from pre-K to college. These platforms can identify knowledge gaps and guide students to appropriate challenges (UNESCO, 2019).

Educational surveillance, as implemented at Rensselaer Polytechnic Institute, can provide additional data to AI systems by analyzing student facial expressions. This information can further refine the personalization of lessons.

Personalized learning can significantly enhance lifelong learning opportunities for individuals who may have had to pause their studies or for employees seeking to continuously update their skills and take on new challenges.

Global Classrooms

AI-powered classrooms shatter international barriers to bring virtual lectures from anywhere in the world to the learner's doorstep. AI can make available global classrooms for students to access from anywhere in the world at any time. AI can also help break the language barrier by providing personalized lessons as per demographic requirements of the learner. Real-time AI-empowered translators help create subtitles for the video lectures which helps avoid delays in lectures. Students from remote locations can learn at a comfortable pace without any barriers.

Research

Research output can be improved by using AI to reduce the vast database of literature and data available as per the requirement of the researcher. AI empowered systems can also highlight and rank literature as per significance and avoid the humungous task of manually going through repetitive research base. Systems have been developed for assisting researchers in compilation of bibliography. Microsoft Academic (MA) is a Microsoft Research project exploring how to assist academics in conducting scientific research by leveraging the computer's' cognitive power. MA uses natural language processing (NLP) techniques to give each paper discovered by Bing crawler a semantic label. By analysing 230 million papers, MA has built a graph of 710K+ semantic labels derived using self-supervised learning. Each paper is ranked by estimating the importance of each entity, such as the authors citing it, using big data and graph analysis. MA also recommends similar papers that do not have a citation relationship (Perera and Aboal, 2020).

Assisted Evaluation

AI can be effectively used to evaluate each student as per personalized criteria. Students exhibit diverse learning styles, including variations like reflective or active learning, field-dependent or independent learning, and intuitive or sensitive learning (García et al., 2007). AI can be used to assist the teacher in designing evaluation parameters set to each learner's capabilities. Intelligent assessment and management applications have been developed to address these challenges by offering

automatic grading and evaluation capabilities and support for collaborative learning and resource management (Wang et al., 2024). This can help in better assessment of the classroom and well-defined feedback can be given to the student and parents. It can also be used to chalk out various areas which might need improvement or extra classes as per different requirements. Wang (2014) found that evaluation-centered e-learning systems were effective in promoting students' academic performance and correcting misconceptions, especially for students with low levels of prior knowledge. Lessons can be tailored according to the weak areas identified by AI.

Automated Administrative Systems

AI can drive efficiency, personalisation and streamline administrative tasks to give teachers more time and freedom to work on productive research works. Teachers can focus on designing lessons while AI can assist in other administrative and co-curricular tasks assigned to them. The free time can be productively used by educators to enhance their pedagogy skills or focus on research work, which will in time help the students. Marking papers and making records can be easily automated. There are already several platforms on the market offering specialized generative tools to help teachers with these jobs, including Teachermatic and Microsoft's Education Copilot.

Challenges of AIEd: Arguments Against AI in Higher Education

As can be seen from the opportunities that AI provides, it can be said that AI can assist both teachers as well as students to enhance the teaching-learning experience. However, the use of AI remains limited due to different reasons like narrow understanding of computer systems, a low level of awareness regarding the scope of AI and mostly the threat of AI taking over teachers' jobs in the future. These arguments against AIEd are hindering the implementation of AI at a larger scale. Limited use will not be able to utilize the opportunities and benefits that AI may provide. These challenges must be identified and discussed to overcome the technical and mental barriers to AIEd.

The Human Touch

The basic argument against AI is that it lacks the human touch and understanding which can be provided only by teachers physically present in the classroom. Machines and computers, however smart and advanced, will never be able to copy human behaviour. AI lacks the sensitivity and emotional quotient of a good teacher. AI-designed systems, once set up with a defined system of teaching, will evaluate the students strictly as per the defined parameters without any scope of variability in results. This results in a rigid structure. AI cannot create the kind of learning environment that a teacher can. Students will lack a lot of life skills such as communication, building relationships and being a part of a society if teaching is completely handed over to machines. Students build more meaningful relationships with mentors than they do with machines.

Accuracy of Data

Data provided by AIEd systems is defined as per previously set criteria. Changes in circumstances or requirements may cause drop in accuracy of the data provided in the future. "That data can vary in quality, it may be old and outdated, or it may be drawn from a subset of the population that may not align with the students being targeted." (Akinwalere & Ivanov, 2022). For example, the tools used to evaluate a particular set of students of a particular set of demographic traits will not provide the same accuracy on another group of students from a different demographic set-up. Designing of different tools and techniques based on numerous combinations of demographic data to impart the same lesson will lead to a high level of expenditure and time input. This will, as a result, cancel out the benefit of AI assistance to teachers. "If it's learning from skewed data, it's going to make skewed decisions" (Amer, 2023)

Cause and Effect Relationship

Testing causality remains a manual job due to AI lacking reasoning skills. "Models are based on correlation; they are not reflective of causation. The point of AI tools and models is to show less intuitive, more attenuated correlations and patterns. Separating which correlations and patterns are accurate and which are simply noise can be difficult." (Akinwalere & Ivanov, 2022). Teachers must have clear criteria about when it is appropriate to follow or override computer-generated insights to prevent unfair inconsistencies.

Usefulness of Output

It is important to chalk down questions in advance which need to be answered using outputs

of an AI system. Output from AI itself provides no actual insights into the potential of learners without any previously defined framework of assessment and programme outcomes. On the one hand, AI eliminates the problem of subjectivity in assessment. On the other hand, there is the danger of underestimating students' capabilities due to their inability to consider additional skills and knowledge (e.g., participation during classes) (Akinwalere & Ivanov, 2024).

Future of Teaching

It is very common thinking among the teaching community that the use of AI in higher education will lead to AI taking over jobs completely and causing huge layoffs. Computers will replace teachers and this will cause a dearth in teaching jobs in the future. this fear of displacement often hampers educators from relying on AI for teaching assistance. AI can be used for creating global classrooms by providing online learning. This removes the limitation on class sizes, and AI could contribute to significant job losses in the education sector.

Suggestions to Overcome Challenges

Educators have to understand the challenges along with the opportunities of using AI in order to efficiently implement these systems. It needs to be understood that AI is a tool for assistance, not replacement. AI systems for utilizing the full potential of technology in educations should be developed. Teachers need to be trained in AI and its implementation in classrooms. Fullan & Donnelly (2013) describe three forces essential to the delivery of technology-driven changes in learning (Luckin et al., 2016). These are presented here.

Pedagogy

Pedagogical implementation of AI should be the first and foremost change in the traditional teaching-learning process. Akinwalere & Ivanov (2022) states this as "an awareness of the fact that the teaching process should not be lured by modern technologies but should focus on learning". In other words, modern technology must support the teaching process, not replace it.

Systems Change

The use of technology is a change which is happening in real-time. Educators cannot close their senses to this fast-paced change. Change has already taken place in one form or another and, thanks to technology, the time and space constraints of the physical classroom have been overcome (Akinwalere & Ivanov, 2024). Education now takes place in real time literally anywhere in the world. AI will enhance the quality of education.

Technology

An infrastructure has been developed that supports the learning process through innovative learning models (Fullan & Donnelly, 2013). AI combined with higher education can produce new models of education which "can create standardised models based on generally accepted and valid learning practices." (Akinwalere & Ivanov, 2024). This could improve the quality of education to levels of growth which remained unprecedented until implementation of AIEd.

Teachers need to be made secure about their livelihoods not being destructed by inculcation of AI in education. Students need to be in constant touch with their teachers and not completely rely on AI-based evaluation and feedback mechanisms. Educators must utilize AI to enhance the learners' learning experience.

Infrastructural changes need to be made especially in areas with lack of computerization and internet facilities. Global classrooms cannot be made a reality without the provision of adequate systems to access technology. The use of AI needs to be started from basic levels of education in order to make students comfortable with the user interface.

Conclusion

AI should be viewed as an adjunct to traditional human-to-human classroom interactions, serving to address the diverse needs of students. By bridging learning gaps and augmenting educators' capabilities, AI can empower teachers to achieve more than ever before. The ideal vision for AI in education is one where machines and teachers collaborate harmoniously to optimize student outcomes.

To prepare learners for an AI-driven future, educational systems are actively undergoing reforms. However, further research is imperative to fully harness the potential of AIEd while mitigating concerns about job displacement.

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Quality Enhancement in Higher Education through Undergraduate Research

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Knowledge creation and research are critical in growing and sustaining a large and vibrant economy like India. As India moves towards becoming a knowledge economy, the higher education system is being re-energized to provide hands-on learning experiences to students, keeping in view the requirements of the fourth industrial revolution. One of the fundamental principles guiding the development of our education system is the fostering of 'outstanding research as a prerequisite for nation's development'. National Education Policy –2020 (NEP–2020) envisions the development of active research communities across disciplines, and supports the nurturance of research and innovation through the setting up of incubation centres, greater industry-academia linkages, and interdisciplinary research.

Education is one of the fundamental factors in both social and economic development. A significant investment in education is necessary for long-term growth. With the emerging knowledge-based economy, the importance of knowledge production, technological innovation, and highly skilled manpower cannot be stressed enough. Realising the value of a robust human resource base, the Ministry of Education (formerly the Ministry of Human Resource Development) was established in 1985 to promote people's overall development and access to basic education. The Department of Higher Education is involved in providing top-notch opportunities for research and higher education in the country.

However, the Department of Higher Education allocates a budget for various Research and Innovation schemes namely:

- Training and Research in Frontier Areas;
- National Initiative for Design Innovation;
- Start-up India Initiative in Higher Educational Institutions;
- Unnat Bharat Abhiyan;
- Implementation of the IMPRINT Research Initiative (Impacting Research Innovation and Technology);
- Impactful Policy Research in Social Science (IMPRESS);
- Scheme for Promotion of Academic and Research Collaboration (SPARC),
- Scheme for Transformational and Advanced Research in Sciences (STARS), and
- Multidisciplinary Education and Research Improvement in Technical Education (MERITE).
- Promotion of University Research and Scientific Excellence (PURSE)
- Consolidation of University Research for Innovation and Excellence Programme (CURIE)

The total allocation for these schemes was Rs.283.94 crores in 2020-21 and for 2021-22, Rs.237.40 crores have been allocated. There is no separate outlay for Research & Development for teacher education and adult education. The funds under 'Miscellaneous Activities' can be used by the CTES for undertaking Research. Under *Rashtriya Uchchatar Shiksha Abhiyan* - RUSA 2.0, over Rs.1000 crores were allocated for the promotion of Research & Development (R&D).

Further, the National Institute of Educational Planning and Administration (NIEPA) carries out research activities in the education sector (including minority education), specifically under the umbrella programme for the Development of Minorities Scheme for Providing Education to *Madrasas*/ Minorities (SPEMM).

Higher Education and Research in India

In 2015, there were just 216 researchers per million people in India, a country of 1.3 billion people; by 2020 that number had risen to 262. India's investment in research is a measly 0.64 per cent of GDP. These numbers are well below global best practices. France, for example, spends 2.25 per cent of its GDP on research, and the United States, 2.74 per cent; both countries have some 4,300 researchers

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per million population. China, for its part, invests more than 2.11 per cent of its GDP in research and has 1,200 researchers per million population. In higher education, in particular, India's research expenditure is only 4 per cent of GDP. There are some 161,412 students enrolled in PhD programmes in 2018. This comprises less than 0.5 per cent of the total student enrolment in higher education in the country – which constitutes students enrolled in universities, colleges and standalone institutes pursuing undergraduate and postgraduate programmes.

As per the National Science Foundation (NSF), United States of America database, India's growth rate of scientific publication was 9.4% as against the world average of 4.3% during 2010–20. India's research output in the publication has increased by 2.5 times from 60,555 in 2010 to 149,213 in 2020. India's share in global research publication output has increased over the years from 3.1% in 2010 to 5.1% in 2020. In 2020, India was ranked 3rd in scientific publications, ahead of many developed and developing countries including BRICS except China.

During 2020, India's largest publication output was in Computer and Information Science (18%) followed by Engineering (17%), Health Sciences (16%), Biological and Biomedical Sciences (12%), Physics (11%) and Chemistry (8%) as per the Science and Engineering Indicators,2022, NSF, USA. During 2021–22 a total of 66,440 patents were filed in India. Out of which, 29,508 (44%) patents were filed by Indian residents. As per the World Intellectual Property Organisation (WIPO) Report 2022, India is ranked at 7th position in terms of Resident Patent Filing activity in the world. Patent applications filed in India are dominated by disciplines like Computer/Electronics, Mechanical, Communication and Bio-medical. As per the Directory of Research and Development Institutions, 2021, there were 7888 Research and Development institutions in the country, out of which 66% were in private sector.

In the March 2023 Annual Budget, the Finance Minister announced the 'Prime Ministers Research Fellowship', with an initial budget allocation of Rs.400 crores. Under the scheme, undergraduate and postgraduate students with a Cumulative Grade Point Average (CGPA) of at least 8.0 from elite Indian institutes such as the Indian Institute of Science (IISc.), Indian Institutes of Technology (IITs), National Institutes of Technology (NITs), Indian Institutes of Science Education and Research (IISERs) and Indian Institutes of Information Technology (IIITs), will be given research grant and fellowship to pursue research. This measure will encourage students to pursue research. But here the questions arise why these schemes are restricted to a few premier institutes that constitute only two per cent of student enrolment in higher education? Is scarcity of funds the only reason behind the research crisis in India?

Undergraduate Research – A Significant Recommendation of NEP--2020

The Council on Undergraduate Research (CUR) define Undergraduate Research as "an inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline". Students are encouraged to discover the excitement of research under the supervision of a faculty. An undergraduate student's investigation may or may not add anything novel to the discipline but it gives exposure and lays the foundation for a research-oriented career in future.

Undergraduate research has the potential not only to profoundly influence the future interests and careers of students but also to lead to various benefits such as advancements in technology, solutions to global challenges, and innovation-driven economic growth. The need for strong research ecosystem that supports the growth of research capabilities and output across disciplines is urgent given the challenges posed by population dynamics and climate change, expanding digital marketplace and the emergence of artificial intelligence and machine learning.

Role of the National Research Foundation (NRF)

Through an Act of Parliament, the Government of India will establish a new National Research Foundation, an independent entity, to support, guide, encourage, and develop the capacity for high-quality research in all fields throughout the nation, mostly at state universities and colleges. NRF will strengthen the overall research ecosystem in the country and will focus research on identified thrust areas relevant to our national priorities. It will be given the proper infrastructure and personnel training to enable it to accomplish its goal.

The establishment of a National Research Foundation (NRF) to fund outstanding peer-reviewed research in all disciplines and to actively seed research in universities can catalyse the quality and quantity of academic research. Research in all academic fields will be funded by the NRF at a competitive rate, including Education, Sociology, Archaeology, Arts, History, Medicine, Physics, Agriculture, Nano Science, and Artificial Intelligence. NRF will strengthen endeavours to undertake high-quality interdisciplinary research across fields that can help tackle societal challenges faced by India, such as access for all its citizens to clean drinking water and sanitation, quality education and healthcare, improved transportation, air quality, energy, and infrastructure. The inclusion of research, internships in the undergraduate curriculum, and faculty career management systems that give due weightage to research and innovation are the guiding principles of NRF.

Students as Researchers – Strategic Road Map to Innovative India

Academic staff at higher education institutions are interested in advancing or improving learning through pedagogy emphasising "students as researchers". It offers a distinct picture of the disciplinary research approach that uses "students as researchers," arranged within a range of conceptual frameworks and dimensions. This strategy focuses on helping students finish their research cycle by promoting the publication of their work. At the 56th annual convocation of the Indian Institute of Technology-Bombay, Prime Minister Sri Narendra Modi delivered motivational and encouraging words *"In the innovation index, we are going up. We must make India an attractive destination for innovation,"* (2018).

Undergraduate Research Organizations

Several organisations promote research culture among students. Details of some of them are presented here.

Council for Undergraduate Research

CUR's mission is "to support and promote high-quality undergraduate student-faculty collaborative research and scholarship". CUR offers individual faculty and institutional membership, supports funding for collaborative research, disseminates best practices, and offers workshops for those seeking to further their commitment to undergraduate research.

National Conferences on Undergraduate Research

The main objectives of NCUR are to promote undergraduate research, scholarship, and creative activity in all fields of study by sponsoring an annual conference for students. During NCUR conferences, students from all disciplines can network and present original research to peers and teachers. Furthermore, NCUR offers courses for faculty development focused on mentoring best practices and collaborative undergraduate research.

National Science Foundation Research Experience for Undergraduates (NSF REU)

In the USA the NSF's REU programme supports undergraduate research in areas funded by the National Science Foundation. The NSF accepts proposals for REU sites and provides financial assistance for undergraduate research experiences.

Campus Undergraduate Research Programmes (CUR)

There are numerous undergraduate research programmes at colleges and universities. Some provide stipends or academic credit to students, while others provide faculty collaborators with course releases or stipends. While some programmes are only offered in the summer, others are offered throughout the academic year. CUR offers details about several institutions' undergraduate research programmes.

Undergraduate Research Conferences and Journals

NCUR sponsors a conference for students of all disciplines. Some institutions offer undergraduate research symposia for their students, and many discipline-specific state, regional, and national conferences offer sessions where undergraduates can present their work. Several universities that offer undergraduate research programmes also have journals for their student research. Many publications welcome undergraduate research and also take undergraduates' service as reviewers. "Students must bring a certain ragamuffin barefoot irreverence to their studies; they are not here to worship what is known, but to question it," says Bronowski (1975).

Undergraduate research enhances student learning and development and can also benefit faculty,

institutions, and the community. Undergraduate research plays a vital role in the academic and personal development of students. It benefits students in numerous ways:

Hands-on Learning Experience

Undergraduate research provides students with practical, hands-on experience in their field of study. It allows them to apply theoretical knowledge gained in the classroom to real-world problems and scenarios, enhancing their understanding of concepts and theories.

Critical Thinking Skills

Engaging in research encourages students to think critically and analytically. They learn to evaluate information, identify patterns, and draw conclusions based on evidence, which are essential skills in both academia and the professional world.

Problem-Solving Abilities

Research often involves encountering obstacles and challenges that require creative problem-solving skills. Through the research process, students learn how to overcome setbacks, adapt their approaches, and find innovative solutions to complex problems.

Personal Growth and Confidence

Undertaking research fosters personal growth and confidence in students. As they navigate the research process, from formulating hypotheses to presenting their findings, they develop a sense of ownership over their work and gain confidence in their abilities as scholars and researchers.

Advancement in Knowledge for Higher Studies and Careers

Undergraduate research helps students to get meaningful insights and facilitates advancement of knowledge in various disciplines. It demonstrates their ability to conduct independent inquiry, which is highly regarded both in higher education and by employers.

Networking Opportunities

Engaging in research exposes students to a network of peers, mentors, and professionals in their field. These connections can provide valuable guidance, support, and future collaboration opportunities, enhancing the student's academic and professional prospects.

Personal Fulfilment and Satisfaction

Engaging in research allows students to explore their passions and interests in greater depth. The sense of satisfaction that comes from making meaningful contributions to their field of study can be immensely rewarding and motivating. Research experience enhances a student's skills, setting them apart from their peers in competitive academic and professional environments.

How Science Can Move Forward?

The influence of a university education is difficult to understand in the quickly changing technology landscape of today. In many different domains, research contributes to the generation of novel ideas and the resolution of global concerns. Universities hold significance as they:

- Serve as hubs for creating knowledge.
- Offer opportunities for students to collaborate with experts from diverse disciplines.

The increasing emphasis on education is a sign of things to come. Scientists are encouraged to break down boundaries and look into connections and methods that could lead to revolutionary discoveries. By bringing together academic scholars from many fields, this approach enables them to examine problems from several perspectives and develop practical solutions. Collaboration between biologists and engineers, for instance, might result in the development of novel techniques for generating energy or pharmaceuticals.

Higher Education and Research in Andhra Pradesh

In Andhra Pradesh, there are twenty-two state universities, three central universities and twenty Central Autonomous Institutions, four deemed to be universities and 5 private universities. Out of 104 autonomous degree colleges in the state, there are 16 government autonomous degree colleges and 25 private aided autonomous degree colleges and the remaining are in the engineering stream and are performing well under autonomy. Autonomous colleges have more academic and operative freedom than non-autonomous colleges. They have the freedom to frame their curriculum and devise methods of evaluation in consultation with parent-affiliating universities. At present, there are about 1000 private unaided colleges. Andhra Pradesh state is on the frontline for innovations in higher education.

All India Survey on Higher Education (AISHE) has ranked Andhra Pradesh as third in the country in terms of college density. The NEP---2020, launched on July 29, 2020, aimed to revolutionise the education system by promoting accessibility, inclusivity and excellence. In this context, Andhra Pradesh has emerged as a prime example of commitment and innovation in aligning its higher education ecosystem with the vision of NEP---2020. Under the aegis of NEP 2020, Andhra Pradesh has witnessed a sweeping transformation in its higher education sector, setting a standard for other states to emulate.

Community Service Project (CSP) is an experiential learning strategy introduced by APCCE that integrates meaningful community service with instruction, participation, learning and community development. It involves students in community development and service activities and applies the experience to personal and academic development. CSP is meant to link the community with the college for mutual benefit. The community will benefit from the focused contribution of the college students to the local development. The college finds an opportunity to develop social sensibility and responsibility among students and also emerge as a socially responsible institution.

Summing Up

In higher education, past efforts have been modest and fragmented, and have failed to impact the education system in any significant way. The state of research, in particular, has not only failed to improve but has suffered tremendously. The blame can be placed on both the government and the educators themselves. Due to the nation's practice of separating teaching from research, entire generations of students have graduated from college without conducting a single original study. A large number of these graduates lack the industry knowledge and skills necessary to find employment.

- Colleges gain from research activities through various means such as funding sources, patents, licencing agreements, and more. Research projects that demonstrate success can obtain financial support from public or private charitable institutions.
- The significance and diversity of study roles in colleges cannot be overstated. It is the driving force behind progress in learning, personal development, and social advancement.
- The Indian education system needs to look for measures to improve the heavy textbook-based curriculum it now uses. UG research will assist India produce pertinent scholarly research that will benefit the nation and beyond, in addition to improving the calibre of staff and students in the system.
- To stay up with evolving global trends, a goal-oriented and targeted plan must be designed to attain the highest standards in research and teaching-learning.

Moreover, educational research often leads to the development of tools and products. These ground-breaking discoveries have the potential to transform whole sectors and improve our quality of life through technological developments and life-saving innovations. Research has yielded numerous life-saving drugs and therapies, and universities have played a key role in advancing energy technology following years of intensive study. University research does not drive the expansion of businesses. It also promotes improved comprehension and technological developments. Working together with business partners to commercialise research ideas into products and services can boost economic expansion and generate new employment opportunities.

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Call for Social Justice

Droupadi Murmu, Hon'ble President of India delivered the Convocation Address at the 21st Convocation Ceremony at Nalsar University of Law Hyderabad on September 28, 2024. She said, "It is your duty to give your advice in line with high ethical standards. Whatever role you choose as a legal professional, always stick to the values of integrity and courage. Speaking truth to power makes you more powerful." Excerpts

I convey my hearty congratulations to all the students who have been awarded their degrees in this convocation. I share the joy of those students who have received medals for their extraordinary accomplishments. I appreciate the contribution of the faculty-members and the entire team of the University in helping the students reach a major milestone in their life and career. I understand the sense of fulfilment among the family-members who have been helping and encouraging the students.

I admire the efforts of NALSAR in taking care of issues concerning disability, access to justice, prison and juvenile justice, and legal aid. I am happy to note that NALSAR has set up an Animal Law Centre. It reminds me of my tenure as the Minister for Department of Fisheries and Animal Resources Development in Odisha nearly 20 years ago. There, I had realised that there must be wide-spread efforts to sensitise people about protection and welfare of animals. I expect the younger generations to protect animals and birds, trees and water-bodies as necessities for wellbeing of the humanity. NALSAR's Animal Law Centre is a good step in that direction.

I am glad that this University is also focusing on Artificial Intelligence as an area of study. In the global legal scenario, jurists and judges are seized with the matter of consulting with algorithms for evaluating parties in a dispute. As future legal professionals, the students passing out today should be prepared to deal with rapid changes induced by technology.

They should use technology as a tool for professional advancement and also as a means of social justice.

Dear students, For a great country like ours, a sense of history arouses national pride and aspirations. Democratic traditions and practices of ancient India were highlighted by Dr. B.R. Ambedkar in his concluding speech at the Constituent Assembly.

The system for administration of justice reflects the prevailing social and cultural environment of a society. Nearly 2300 years ago, the ambassador from Macedonia in the court of Chandragupta Maurya, Megasthenes described Indians as remarkably law-abiding people. Chandragupta Maurya's minister Chanakya, in his celebrated work 'Artha-Shastra', had advised that a bench of three magistrates be set up for every ten villages, with higher courts in districts and provinces. A bench of judges was preferred to individual judges. Artha-Shastra enumerates the high standards set for the officers responsible for administration of justice. It also suggests that no private meetings should be allowed between judges and litigants until cases were settled. Impartial administration of justice was given utmost importance.

A rich corpus of legal literature was developed in different parts of ancient India. One of the most important legal references, the Apastamba Sutra is said to have been written in this very Deccan region.

Dear students, I have shared these historical details with you to remind you of the high legal traditions of our country. Our proven excellence in the past will inspire you to re-discover our collective genius.

Father of the nation, Mahatma Gandhi gave up a successful legal career to fight for justice on a much larger scale. Yet, his articulation like a lawyer was evident in his advocacy for the great causes he took up. His first Satyagraha in India, at Champaran, was launched for securing justice for the poor farmers exploited by Indigo planters. As part of the satyagraha, Gandhiji and his associates like Dr Rajendra Prasad, who was also a lawyer, prepared detailed documents concerning each and every farmer. This systematic and voluminous documentation, prepared over several days, strengthened the Satyagraha, forcing the government to decide in favour of the farmers.

Thus, Gandhiji blended compassion with legal acumen and won several battles against the most powerful empire the world has ever seen. This blend of compassion and legal expertise is a formula for success which also contains sensitivity and fairness. This can be a template for a legal professional who wants to have a meaningful and successful career and life.

Our Constitution contains the ideals of our freedom struggle, namely, justice, liberty, equality and fraternity. The ideal of equality, enshrined in the Preamble and Fundamental Rights, also finds expression in one of the Directive Principles of State Policy concerning delivery of justice. The Directive seeks to provide equal justice and free legal aid. It makes the State responsible "…to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities." The vision statement of your institution also underlines a particular focus on social justice to the marginalised communities. Unfortunately, a poor person does not get the same access to justice as a rich person. This unfair situation must change for the better. I expect your generation of legal professionals to be the change agents.

Dear students, Advocates are officers of the courts. As advocates, you will have a duty to assist the court in dispensing justice, apart from taking care of the interests of your clients. Many of you may be joining corporate entities or legal firms as advisers or associates. It is your duty to give your advice in line with high ethical standards. Whatever role you choose as a legal professional, always stick to the values of integrity and courage. Speaking truth to power makes you more powerful.

I have observed that girl students have out-numbered boys as medal- winners. Although, the total number of girl students who received degrees today is a little less than that of the boys. I have seen this pattern across many institutions of higher education. This demonstrates that despite several limitations which they still have to face, our daughters are making us proud with their excellence. I convey my special appreciation for the girl students in today's convocation. I also expect these girls to help and empower other women and girls who are under-privileged.

NALSAR has taken lead in several areas. In today's convocation, members of Bar and Bench are gathered here. Every segment of the society is a stakeholder in promoting safety of women. I urge upon NALSAR, including its alumni, to enlist the support of all stakeholders and help in setting up a nationwide network of women advocates and law students. This network will work with the mandate to make concerted efforts to prevent atrocities against women and deal with cases of such atrocities.

Dear students, I am sure you will utilise your education in NALSAR as an effective instrument of social justice and development. With this approach, you will add meaning to your success. You will also have the satisfaction of making contribution to our national goals. I wish you a very bright future.

Thank you, Jai Hind! Jai Bharat! ❑

International Seminar on Women's Empowerment and Inclusiveness

The one-day International Seminar on 'Women Empowerment and Inclusiveness' was organised by the Departments of Economics and Social Work, GTN Arts College, Dindigul, on September 20, 2024. About 150 participants attended the event and engaged actively with the resource persons. The event aimed to explore the critical themes surrounding women's empowerment and the importance of inclusiveness in society. The Convener, Dr. P Ravichandran, Associate Professor and Head, Department of Economics welcomed the gathering, laying the foundation for the discussions by elaborating on the theme of the event and gender equality, social inclusiveness, and their intersection with educational and entrepreneurial systems. Mr. S Saravanan, Principal, GTN Arts College delivered the Presidential Address. In his speech, Dr. Saravanan highlighted the pivotal role played by educational institutions in shaping gender-equitable policies and in promoting women's empowerment. His address underscored the college's commitment to facilitate such transformative discussions and foster inclusiveness. The book authored by Dr. P Ravichandran entitled 'Women Empowerment and Self Help Groups' was also released on the occasion.

Dr. S Raja, Assistant Professor, Social Work introduced the Chief Guests and provided insights about the esteemed resource persons who shared their expertise throughout the day. Ms Beniditta, Faculty Member, Central Saint Martina College, Italy delivered the lecture on 'Gender Equality and Educational Systems'. She emphasized how education plays a critical role in empowering women and in ensuring gender parity. Her insights into global educational systems highlighted how progressive policies and practices can help bridge gender gaps, making education an inclusive platform for all.

Mr. Viswasam Gnana Arockiam, Director, SIMCODESS Society spoke in detail about 'Ecology and the Activism of Women'. His presentation drew attention to the often-overlooked contributions made by women in ecological movements, particularly their roles in environmental protection, sustainability, and activism. He connected these themes to broader social issues, showing how ecological activism intersects with gender equality.

Dr. KTM Thirupathi, Assistant Professor of Management Studies at Annai Fathima College, Madurai elaborated on 'Nari Shakthi Entrepreneurship and Its Inevitability for *Vikshit Bharat'*. He argued that women's participation in entrepreneurship is not only essential for their empowerment but also for the country's overall development. He explored the concept of *Nari Shakthi* (Women's Power) in building a developed and self-reliant India, presenting case studies and successful models of women entrepreneurs who have made significant contributions to the economy.

Ms Maria Rose Meena, Assistant Director, SIMCODESS Society delivered an impactful lecture on 'Women Empowerment and Gender Equality'. Her talk expanded on how women's empowerment can be realized not just through educational and economic inclusion but also through strong policies that promote gender equality in all areas of life—be it in family, community, or professional settings.

There were several interactive sessions where participants posed questions, shared their views, and reflected on the need for inclusive policies, entrepreneurship and social systems that empower women and promote equality. The resource persons encouraged lively debates, offering practical insights and solutions to the challenges raised by the audience. The event concluded with Ms. Regina, Head, Department of Social Work and she proposed the Vote of Thanks. She expressed her deep sense of gratitude to the esteemed guests, the seminar organizers and the participants for making the event a grand success. Ms. Regina emphasized that the discussions held during the seminar would have a lasting impact, furthering the cause of women's empowerment and inclusiveness. Behind the scenes, Mr. S Arun, Assistant Professor, Economics, and Dr. Kathiravan, Assistant Professor, Social Work, Dr. Bala Komala managed all arrangements

for the seminar, ensuring in smooth execution of the event.

International Conference on Interdisciplinary Collaboration and Opportunities

The International Conference on 'Interdisciplinary Collaboration and Opportunities: Social Science, STEM, and Information Science' was jointly organized by the Sankar Polytechnic College, Tirunelveli, Tamil Nadu, San Jose State University (SJSU), California, USA, and Society for the Advancement of Library and Information Science, recently. The inaugural function commenced with the *Tamilthai Vazhthu,* the state anthem of Tamil Nadu. Dr. B Vijayalakshmi, Organizing Secretary, IOC-ICO and Librarian, SPC welcomed all the organizers and the diverse audience comprising individuals from various disciplines, states, and countries. Dr. A M Venkatachallam, President, SALIS and Library Director, KSRCT, Tiruchencode introduced the organizers. Dr. Anthony Chow, Director and Professor, I School and School of Information, San Jose State University, California, USA extended the welcome on behalf of SJSU and acknowledged the co-sponsorship of the Conference. Dr. A Sankara Subramanian, Principal, SPC, India delivered the Presidential Address and released the Conference Proceedings.

Dr. Susan Alman, Gateway PhD Programme Coordinator at San Jose State University, San Jose, CA delivered the Keynote Address on 'Technologies and Techniques in Library and Information Science Education'. Dr. R Gopalakrishnan, Principal of KSRCT, Tiruchengode delivered the Keynote Address on the 'Importance of Interdisciplinary Collaboration and Opportunities'. Dr. A Hariharan, Founder President, SALIS proposed the Vote of Thanks. Dr. N Raja, Associate Professor (Computer Science), Department of Basic Engineering and Applied Science, Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University, Kumulur served as the Rapporteur General of the Conference.

The Technical Session was chaired by Dr. K Indira Devi, Principal, GRG Polytechnic College, Coimbatore, and rapporteur by Dr. N Raja, Associate Professor (Computer Science) Tamil Nadu Agricultural University, Kumulur. The session commenced with a plenary lecture on Archives & Record Administration - from Floppy Disks to Blockchain Technology, presented by Dr. Darra Hofman, MARA Coordinator, San Jose State University, San Jose, CA, USA.

Dr. Hofman's insightful presentation highlighted the evolution of archival practices from traditional methods using floppy disks to modern solutions leveraging blockchain technology. She discussed the challenges and opportunities faced by libraries and archival institutions in adapting to technological advancements, emphasizing the importance of preserving digital records in an increasingly digital world. Dr. Hofman's expertise and engaging delivery set a vibrant tone for the session, inspiring attendees to rethink archival practices in the digital age.

The participants' presentations covered diverse topics, including a study and comparison of Kevlar49 Composite and Kevlar49/Glass Hybrid Composite, a Mobile Application Based Crop Calendar, and the discrimination of the girl child and challenges of a single mother pictured in Chitra Banerjee Divakaruni's works. Each presenter detailed their research's problem statements, background, novel methodologies, results, and outcomes, demonstrating how these advancements address global humanitarian needs. The session was informative and engaging, providing valuable insights into current research trends and technological innovations, making it a significant part of the event.

Dr. K Ramasamy, Librarian, M V Muthiah Arts College for Women, Dindigul, Tamil Nadu chaired the next session. Despite the challenges posed by the virtual format, the session maintained its informative and engaging nature, showcasing the diverse topics covered by the presenters. One of the presentations delved into a study and comparison of Kevlar49 Composite and Kevlar49/Glass Hybrid Composite, offering insights into the materials' properties and potential applications. Another presentation focused on a 'Mobile Application-Based Crop Calendar' highlighting the use of technology in agricultural practices. Additionally, the session featured a presentation on the discrimination of the girl child and the challenges of a single mother as portrayed in Chitra Banerjee Divakaruni's works, providing a literary perspective on social issues. Each presenter

detailed their research's problem statements, background, novel methodologies, results, and outcomes, demonstrating how these advancements address global humanitarian needs. The session's interactive nature allowed for discussions and exchanges of ideas, enriching the conference with diverse perspectives and innovative approaches. Ms S Gomathy, Librarian, Sri Sarada College for Women (A), Tirunelveli was the Rapporteur during the session.

Dr. L Radha, Librarian, Thiagarajar College of Engineering chaired the session on 'Collaborative Technologies in Libraries and Desktop'. The Rapporteur, Dr. M Umai Arasi, ASP/English, K S Rangasamy College of Technology, Tiruchengode ensured the smooth conduct of the session. The session began with a guest lecture by Dr. Mothukuri Anjaiah, Department of Library and Information Science, Kakatiya University, Telangana State. Dr. Anjaiah's lecture provided insights into the evolving landscape of library technologies, emphasizing the importance of collaborative tools in enhancing information access and dissemination. Following the plenary lecture, three papers were presented by the contributors. One of the presenters focused on bridging the digital divide, highlighting strategies to provide equitable access to information resources. The second presentation delved into the Simple View of Reading, discussing models and strategies for improving literacy among academicians. The final presentation provided an overview of various e-resources available in academic libraries, emphasizing the importance of leveraging digital resources for enhanced learning and research outcomes. Each presenter provided a detailed analysis of their research, outlining the significance of their findings in the context of collaborative technologies in libraries. After the paper presentation time, the session concluded with a lively discussion, with participants engaging in fruitful exchanges of ideas and experiences. Overall, the session provided a comprehensive overview of the role of collaborative technologies in libraries, highlighting the importance of innovation and collaboration in advancing the field of library and information science.

Dr E GajaLakshmi, Salis Joint Secretary, Librarian, National School Drama, New Delhi delivered the Welcome Address during the Valedictory Function.

Mr R V Srinivasan, Administrative Officer, SPC, India delivered the Presidential Address. Dr S Sudha Ponnarasi, Lecturer/EEE, SPC introduced the guests. Dr. Souvick Ghosh, Assistant Professor, San Jose State University delivered a Special Address on 'AI and its Profound Impact on Modern Society'. The address was focused on the development of research models and methods that expand traditional information-seeking into voice-based and interactive environments. He emphasized the utilization of techniques in machine learning, natural language processing, and deep neural networks to achieve this goal. Dr. Ghosh engaged the audience by questioning their use of voice-related technologies like Siri, Alexa, or Google Assistant highlighting the prevalence of AI in daily life. One key point of Dr. Ghosh's address was the importance of human-centered AI applications. He clarified terms such as voice-based and interactive environments, referring to systems like Siri and interactive interfaces that track user behavior to improve software design. He also discussed multimodal systems that can understand audio, video, and text inputs for more versatile search capabilities. Dr. Ghosh further elaborated on the ubiquity of machine learning and its significance in automated decision-making across various domains. He provided examples from banking and auditing, where machine learning algorithms are used to detect fraud by identifying suspicious patterns in transactions. Dr. Ghosh emphasized the efficiency of machine learning in processing large volumes of data, which would otherwise be time-consuming and costly for humans. Moreover, Dr. Ghosh discussed AI's impact on education and healthcare, highlighting its role in early disease detection and treatment monitoring. He also addressed the ethical challenges of AI, such as biases in data and algorithms, citing Safiya Noble's work on how search engines perpetuate racism. Additionally, he mentioned the commercialization of AI, where systems like Alexa promote sales for companies like Amazon. In conclusion, Dr. Souvick Ghosh's address provided valuable insights into the current state of AI and its implications for society. His emphasis on human-centered AI applications and the need for transparency and accountability

in AI development resonated with the audience, making his address a highlight of the IOC-ICO conference.

Dr A Hariharan introduced Former Scientist G/Advisor, Ministry of Earth Sciences (MoES), Govt of India, New Delhi. Dr. Prabir Ghosh Dhastidar delivered a valedictory address focusing on the title of mapping and visualizing knowledge landscapes and collaboration structures, especially in interdisciplinary specialties. He outlined his plan to provide an overview of the subject in 15-20 minutes, emphasizing its role in enhancing quality and efficiency in professional activities. Dr. Dhastidar highlighted the challenge of information explosion in the digital age and the necessity of tools and techniques to comprehend vast amounts of data. He discussed the shift from 'mode one' research (fundamental inquiries) to 'mode two' research (application-oriented), stressing the importance of collaboration in addressing current research questions. Dr. Dhastidar explained various tools and techniques for mapping knowledge, including citation analysis, main path analysis, and network analysis, using examples like the discovery of the ozone hole. He emphasized the importance of these techniques in identifying research trends, emerging areas, and core clusters of knowledge. Dr. Dhastidar concluded by highlighting the crucial role of human intelligence in utilizing data and knowledge effectively, expressing hope for increased recognition of the importance of mapping and visualizing knowledge landscapes in the future.

Dr K Elavazhagan, Librarian and Chief Knowledge Officer, Indian Institute of Management, Trichy delivered the felicitation address. The feedback was collected from the participants. Dr. B Vijayalakshmi, Organizing Secretary, IOC-ICO and Librarian, SPC proposed the Vote of Thanks.

The next session was focused on 'Reimagining Publishing and Embracing Collaborative Platforms for the Creation of Living Books'. The session was chaired by Dr. P Balasubramanian, University Librarian and Head, Department of Library & Information Science, Manonmaniam Sundaranar University, Tirunelveli.

Dr. M Mani, Librarian, DDGD Vaishnav College, Chennai was the Rapporteur during the session. The session commenced with a plenary lecture by Dr. V Vimalkumar, Reference Assistant, Mahatma Gandhi University, Kottayam. Dr. Vimalkumar's lecture provided insights into the changing landscape of publishing, highlighting the shift towards collaborative platforms and the creation of dynamic, interactive content. He discussed the concept of living books, which evolve through continuous updates and contributions from readers and authors. Following the plenary lecture, six papers were presented by the contributors, each focusing on various aspects of reimagining publishing. Topics included the integration of multimedia elements in e-books, the use of augmented reality for interactive storytelling, and the impact of social media on the dissemination of scientific knowledge. The session concluded with a lively discussion, with participants sharing their perspectives on the future of publishing and the potential of collaborative platforms.

The session focused on 'Exploring Contrasts in Master of Library and Information Science (MLIS) Education in Virtual versus Face-to-face Settings' was chaired by Dr. K Murugan, Librarian, Sri Parama Kalyani College, Tirunelveli. Dr. G Radha, Librarian, Sri Sarada College for Women, Tirunelveli was the Rapporteur of the session. The session began with a plenary lecture by Dr. Anjali Gulati, San Jose State University, Alumni with an MLIS from the iSchool at SJSU and presently, Associate Professor at the University of Lucknow, Lucknow. Dr. Gulati's lecture provided insights into the challenges and benefits of virtual MLIS education, highlighting the need for innovative approaches to online learning in the field. Following the plenary lecture, nine papers were presented by the contributors, each focusing on various aspects of MLIS education in virtual and face-to-face settings. Topics included the use of virtual reality in library instruction, the impact of online forums on professional development, and the role of digital libraries in enhancing access to information. Each presentation provided valuable insights into the contrasting nature of virtual and face-to-face learning environments, highlighting the strengths and limitations of each approach. The session concluded with a panel discussion, with participants engaging in a lively debate on the future of MLIS education and the potential of virtual learning environments. The programme

concluded with the National Anthem, marking the successful completion of the event.

International Conference on Artificial Intelligence in Healthcare, Education and Industry

A two-day International Conference on 'Artificial Intelligence in Healthcare, Education and Industry' is being organized by the Faculty of Engineering and Technology, Datta Meghe Institute of Higher Education & Research (Deemed-to-be University), Wardha from November 29-30, 2024 through hybrid mode. The Students, Academician, Researchers, Scientists, Entrepreneurs from Industry, Academia and the Healthcare Sector may participate in the Event. The event will bring together Experts, Researchers, Professionals and Stakeholders from around the globe to explore and discuss the transformative potential of Artificial Intelligence (AI) in key sectors. It will be a platform for sharing groundbreaking research, innovative applications, and best practices in utilizing AI technology to address challenges and opportunities in healthcare, education, and industry.

AI is making a massive impact on Education, Industry, and Healthcare. In education, AI technologies are redefining teaching and learning paradigms, enabling personalized learning experiences, adaptive assessments, and intelligent tutoring systems. In healthcare, AI is revolutionizing patient care, diagnostics, treatment planning, and healthcare delivery. From predictive analytics and personalized medicine to medical imaging and telemedicine, AI-powered solutions are reshaping healthcare delivery and improving outcomes for patients worldwide. In industry, AI is driving innovation, efficiency, and competitiveness across various sectors, including manufacturing, finance, retail, and beyond. The Subthemes of the Event are:

AI for Healthcare

- *Precision Medicine and Diagnosis:* AI-powered tools for personalized treatment plans, disease prediction, and early diagnosis.
- *Medical Imaging and Analysis:* Using AI to automatically analyze X-rays, MRIs, and other scans for faster and more accurate diagnoses.
- *Robotic-assisted Surgery and Rehabilitation:* AI-powered robots for minimally invasive surgery, improved surgical precision, and automated rehabilitation programs.
- *Drug Discovery and Development:* Leveraging AI to accelerate drug discovery, predict drug efficacy, and personalize medicine development.
- *Mental Health and Wellbeing:* AI-powered chatbots and apps for mental health support, early intervention, and personalized therapy.
- *Population Health and Epidemiology:* Utilizing AI for disease outbreak prediction, resource allocation optimization, and personalized public health interventions.
- *Healthcare Data Security and Privacy:* AI-driven solutions for protecting patient data privacy, mitigating cybersecurity risks, and ensuring data responsible use.
- *Telehealth and Remote Care:* AI-powered platforms for virtual consultations, remote patient monitoring, and improved access to healthcare in underserved areas.
- *Clinical Decision Support Systems:* AI-powered tools to assist healthcare professionals in making informed decisions based on patient data & evidence-based guidelines.
- *AI for Personalized Nutrition and Healthcare Management:* Developing AI-driven tools for personalized dietary recommendations, lifestyle interventions, and chronic disease management.

AI for Education

- *Personalized Learning and Adaptive Systems:* AI-powered platforms that adapt to individual student needs, learning styles, and pace.
- *Intelligent Tutoring Systems and Virtual Assistants:* Utilizing AI to create personalized learning experiences, provide individualized feedback & offer virtual learning companions.
- *AI-assisted Content Creation and Delivery:* Leveraging AI to personalize learning materials, develop interactive content, and automate content delivery.
- *Assessment and Evaluation:* AI-powered tools for automated grading, personalized feedback generation, and early identification of learning difficulties.

- *Accessibility and Inclusion:* AI solutions for supporting students with disabilities, customizing learning experiences, and promoting inclusive education.
- *Language Learning and Language Instruction:* Using AI to personalize language learning, provide real-time feedback & develop adaptive language instruction tools.
- *Educational Robotics and AI for STEM Education:* Integrating robotics and AI into STEM education to provide engaging and interactive learning experiences.
- *AI-powered Assessment and Career Guidance*: Developing AI-driven tools for personalized career advice, skills assessment, and future job market trends analysis.
- *Educational Data Analytics and Insights*: Utilizing AI to analyze educational data, identify trends, improve learning outcomes, and personalize educational pathways.
- *AI for Early Childhood Education and Development:* Developing AI-powered tools for personalized early childhood education, language development support, and early identification of developmental delays.

AI for Industry

- *Predictive Maintenance and Smart Manufacturing:* AI-driven solutions for predicting equipment failures, optimizing maintenance schedules & improving production efficiency.
- *Quality Control and Defect Detection:* Utilizing AI for automated visual inspection, anomaly detection, and ensuring product quality control.
- *Supply Chain Management and Logistics:* Leveraging AI to optimize supply chains, predict demand, and automate logistics processes.
- *Robotics and Automation:* Developing intelligent robots for industrial tasks, automation of repetitive processes, and enhancing worker safety.
- *Cybersecurity and Threat Detection:* Using AI to detect cyber threats, prevent security breaches, and protect industrial systems.
- *Energy Optimization and Smart Grids*: Applying AI to optimize energy use, forecast demand, and manage smart grids for efficient energy distribution.
- *Personalized Marketing and Customer Service:* Implementing AI for targeted advertising, personalized recommendations & chatbots for improved customer service.
- *Financial Services and Fraud Detection*: Leveraging AI for automated risk assessment, personalized financial advice, and fraud detection in financial transactions.
- *Agriculture and Precision Farming*: Developing AI-powered solutions for crop yield prediction, disease detection, and resource optimization in agriculture.
- *AI for Environmental Sustainability:* Utilizing AI to monitor environmental changes, optimize resource use, and develop sustainable solutions for various industries.

For further details, contact Organising Secretary, Faculty of Engineering and Technology, Datta Meghe Institute of Higher Education and Research (Deemed to be University), Sawangi (Meghe), Wardha- 442107, Maharashtra, Mobile No: 09975281500 / 09420063262, E-mail: *conference.feat@dmiher.edu.in / chetanp.feat@dmiher.edu.in /palashg.feat@dmiher.edu.in.* For updates, log on to: *https://www.dmiher.edu.in/IDICAIEI2024/index.php*

India Management Research Conference

A three-day India Management Research Conference on 'Confluence of Growth, Sustainability, and Resilience' is being organized by the Indian Institute of Management Ahmedabad, Gujarat from December 07-09, 2024. The research scholars, academics, and industry practitioners may participate in the event with an opportunity to network, explore diverse research themes, and gain valuable insights into IIMA's cutting-edge research. Besides increasing the visibility of the institute's research, another core objective of the event is to serve as a recruitment forum for exceptional Ph.D. students.

Key Developments in India

Ten years ago, India was placed amidst the *'Fragile Five'*— a set of vulnerable nations, dependent on foreign investments to drive growth.

Today, India is the fifth largest economy in the world with a GDP worth $ 4.1 billion. From 'Fragile Five' to 'Top Five' in less than a decade—India has challenged stereotypes, rewired perceptions, and reframed policy narratives. Of the many initiatives aimed at creating a pool of opportunities in India, some of the most striking include *Make in India*, *Start-up India*, *Digital India*, the *Smart City Mission*, and the *Atal Mission for Rejuvenation and Urban Transformation*. Amidst numerous reforms, a major reform over the last ten years has been the government's conscious entrustment of the private sector as a co-partner in furthering the nation's development agenda. It is here that academia bridges the gap by conducting management research that can help analyze policy effectiveness, identify opportunities with policy interventions, and formulate strategies for scaling development among others. The Tracks of the Event are:

Track 01: Entrepreneurship: Facilitators & Hurdles Related to Scaling Up of Startups.

Track 02: Management in Health Services.

Track 03: Gold and Precious Metals: Business and Economic Policies.

Track 04A: Finance, Accounting, and Economics.

Track 04B: Real Estate.

T***rack 05:*** Behavioral Science in Management.

Track 06: Transportation and Logistics.

Track 07: Digital Transformation.

Track 08: Corporate Governance, Corporate Sustainability, and Responsible Capital.

Track 09: Leadership Research and Practice in the Context of Changes in the World of Work.

Track 10: Data Science and Artificial Intelligence.

Track 11: Network Science in Management.

For further details, contact Organising Secretary, Indian Institute of Management Ahmedabad, Gujarat- 380015, E-mail: *imrc2024@iima.ac.in*. For updates, log on to: *www.conference.iima.ac.in/imrc/2024*. ❑

Edited Book

on

Realising United Nations Sustainable Development Goals through Higher Education Institutions

By

Dr (Mrs) Pankaj Mittal

and

Dr Sistla Rama Devi Pani

The Association of Indian Universities has come out with a new publication on the vital theme '***Realising United Nations Sustainable Development Goals through Higher Education Institutions'*** this year 2024. AIU undertook several initiatives, like organising consultancies, debates, discussions, and Vice Chancellors Meets with experts from the United Nations, the Government, NITI Aayog, and Industries to deliberate extensively on the various issues regarding SDGs. AIU also gathered articles from experts and erudite scholars on the implementation of the SDGs. Each article in the Book is unique and deals with a wide range of issues involved with SDGs in the words and opinions of the authors. This Book covers a range of articles on the status of implementation and the role that Higher Education Institutions can play in the speedy implementation of all 17 Sustainable Development Goals (SDGs). It certainly acts as a reference guide for those who are stuck in the process of achieving this extremely inevitable Agenda 2030. It provides a roadmap for the government and the universities to act timely to achieve the 2030 agenda for sustainable development.

For further details contact the Editors on Email Id : ramapani.universitynews@gmail.com

Communication

Fragrant Memories of My Teachers

L N Dahiya*

I have been taught and trained by more than 30 teachers from the standard first to PhD level. All have contributed significantly to shaping my career in teaching and administration. My full-blooded salute to all of them on the occasion of the recently held Teachers' Day. This paper brings out vividly the old reminiscences of my teachers in the Department of Economics at Kurukshetra University. To begin with, I remained a part and parcel of the Department of Economics at Kurukshetra University from July 1965 to September 1974, first as a postgraduate student and subsequently as a PhD scholar and also a faculty in the Research Wing of the same department. During my long stay of nearly nine years in the department in the company of my beloved teachers, I developed a great sense of gratitude and admiration towards them for their erudition and benevolence. The Department of Economics then in its infancy having 11 illustrious teachers was running three academic programs, namely BA Honours (Economics), MA(Economics) and PhD, on the pattern of the University of Delhi. Because of the hard work, dedication and sincerity of those teachers, a large number of alumni could carve niche for themselves in their respective fields in India and other parts of the world. What i am today, i owe it to my learned and venerable teachers. My learning and profound research experience in the department, despite my humble rural background, made me so confident that I never found wanting in terms of knowledge and skills, wherever I went for an academic or administrative job or assignment in India and abroad. I always fondly cherish the aromatic fragrance of my teachers in the department of economics, who completely shaped my intellectual outlook and paved way for my future success. I briefly relate my remembrances of my seven great teachers, who taught and guided me during my long stay in the department.

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Dr. Vikas Mishra(1924-2008) joined the Department of Economics as its founder Head in 1961.Prior to joining this department at Kurukshetra university, he had rich experience of teaching and research at prestigious institutions such as the National Council of Applied Economic Research, Institute of Economic Growth and Delhi School of Economics, University of Delhi. He served the Kurukshetra University for 22 years in different capacities as Head, Department of Economics, Registrar and also Vice Chancellor. Dr Mishra completed his MA (Economics) from the University of Manchester, and Ph.D from the University of London, under the able supervision of Nobel laureate Prof. WA Lewis. Dr Mishra taught us 'Economic Development' and delivered lectures without using notes. He was a philosopher-economist and an intellectual scholar. He set up very high standards of teaching and research. We learnt the art and beauty of writing from him. He wished his students to think by developing in them a spirit of enquiry and a habit of critical analysis. Dr Mishra authored four books including 'Hinduism and Economic Growth' that was published by Oxford University Press in 1962. it is from this book that his former student Prof Raj Krishna, who served as a member of Planning Commission of India, conceived the idea of the 'Hindu Rate of Growth' in the context of the Indian economy, and the concept gained a lot of popularity during the 1980s. Dr Mishra wanted the department as well as the university to be international. Therefore, he persuaded Dr N C Kakwani, an internationally acknowledged econometrician from Australia, Miss Elizabeth and Mr. Denish from England, to join the department. The department witnessed an all-round fast and accelerated expansion and enjoyed full academic ambience under his towering personality. He gave a big push to the nascent department in terms of faculty, infrastructure and other necessary teaching-learning resources. His idea of setting up the 'Social Science Faculty Forum' to encourage interdisciplinary approach was a novel idea on the university campus. He infused work culture among teachers and scholars. A strong faculty of

20 members (in 1970-71) and a number of research scholars in the department located on the first floor of the Arts Faculty Building, functioned incessantly from 9.00 am to 8.00 pm and even beyond. Bustling with academic activities, one could hear the whir and hum sound of the newly acquired calculating machines and the hissing of cyclostyle machines even at late nights in the department. The department emerged as a beacon of excellence under him, and so to say, it was the golden era of the department. Dr Mishra's lauding voice and patting my back on my securing the highest score in his paper in the first year internal annual examination, still resonate in my ears. Dr Mishra as already mentioned also served as Vice Chancellor of Kurukshetra University during 1978-81. He is remembered as the Vice Chancellor with a difference.

Dr JD Verma obtained MA(Economics) and PhD degree both from the University of London. His Ph.D thesis was a seminal work in the area of international economics. Before his joining the Department of Economics in 1962, he was in the Punjab Education Service (PES-1). He headed the Department of Economics for nearly five years from 1962 to 1967. He was a versatile teacher, powerful communicator and eloquent speaker. He was a man of amicable manners and his ever-smiling face was a great source of encouragement to the students. He taught us 'Macro Economics' and 'Indian Economic Problems'. His lectures were quite engaging and inspiring. He was deeply committed to his students and their welfare. He was also a skilled listener who could better understand the students' problems. Dr Verma was a Keynesian economist to the core and believed that large public expenditures were essential to boost economic activities, particularly, when economies are sagging and reeling under recession. Dr Verma would continue to inspire those who think economics to be brought into close touch with real life. Dr Verma was a keen observer and nothing could escape his eagle eyes. His memory was extraordinarily sharp and exceptional. On the very first day of the class in July 1965, he asked me if I were wearing a silken shirt in my photo that was pasted on my admission form. And lo he was perfectly right. He had a flair for writing textbooks and authored several books mostly in collaboration with Prof KK Dewett, Head, Department of Economics, Punjab University, Chandigarh, on different branches of Economics. This was the period when books written by Indian authors were not many.

Dr AK Mathur was a man of polished etiquette and a thorough gentleman. He was an academician par excellence and an efficient teacher, intellectually rich and behaviour above reproach. He did his master's in economics from Cambridge (CANTAB) and PhD from the University of London. His long stay in England turned him somewhat Westernised in outlook. He hailed from a family of economists. His elder brother Dr. Gautam Mathur, a bright student of Prof Joan Robinson at the London School of Economics, was a renowned economist. Dr AK Mathur's two thought-provoking research papers published in a highly prestigious international Journal 'Oxford Economic Papers' prompted me to pursue my Ph.D under him. It was my privilege proud that I completed my doctoral degree under his watchful supervision. He left Kurukshetra University to join Jawaharlal Nehru University (JNU),New Delhi in 1972. He served as a Professor at the Centre for the Study of Regional Development in School of Social Sciences, JNU, till his superannuation. He was a highly acclaimed teacher of economics, who was much in demand all over India for the deliverance of his pithy and erudite lectures. In recognition of his monumental work in economics in general and labour economics in particular, he was elected as the President of the Indian Society of Labour Economics (ISLE), and delivered a presidential address at the Annual Conference of the ISLE, hosted jointly by Kerala University and the Centre for Development Studies, Thiruvananthapuram. Prof. Mathur even after his superannuation remained academically active and was associated with the Institute of Human Development, New Delhi, as a visiting Professor. He breathed his last in New Delhi in 2009 at the age of 72.

Dr R S Bhatia(1924-2011) earned his MA(Economics) degree from Indiana University, Bloomington(USA)and PhD from Columbia University, New York, which presently is ranked 7th in the best global universities category. He taught us 'International Economics'. He was a voracious reader, enjoyed teaching developed a close rapport with his students and showed empathy towards them. Since his method of teaching was interactive, we always remained more alert in his class. He always brought for us new information, gleaned from books, journals and newspapers. His philosophy of

education was 'educating the mind without educating the heart is no education at all'. He also taught us quite useful lifelong learning lessons. His concern towards students was exemplary. Once, when we were not getting a standard textbook authored by Prof CP Kindleberger, in India, he promptly arranged it from the USA for the entire class of 30 (20 boys and 10 girls) at a subsidised rate. Not only that, he paid for a few students, who could not afford to pay the high price of the book. He owned a big estate at Karnal, several educational institutions and a large farm at Babarpur near Panipat. Despite his riches, he was humble and generous beyond measure. He served the department as an honorary Professor and charged only one rupee as a token salary from the university. He used to commute daily from Karnal to the university by his car. Dr Bhatia availed voluntary retirement from service in 1981, to supervise his several educational and social institutions patronised by him at Karnal and elsewhere. Besides, that he was a great teacher, he was a very liberal and popular philanthropist in the Karnal region. Despite his long stay and education at elite universities in the USA, he remained rooted in his Indian culture and traditions, as he found these very close to his heart. His altruistic attitude towards social issues was truly noteworthy. He was a warm and compassionate human being. He also launched a magazine (Cohesion) that published research articles, largely, multidisciplinary.

Dr HL Ahuja obtained his MA(Economics) degree from Panjab University, Chandigarh , with distinction. He was also the recipient of McConnell Levin Prize from Panjab University for his paper "Investment Criteria in Development Planning". Later, he earned his doctorate from Delhi University for his thesis 'Development Strategy for Labour Surplus Economy'. He taught us 'Micro Economics' and had great command and mastery over his subject. He always recommended standard textbooks authored by celebrities such as Alfred Marshall, EH Chamberlin, Paul Samuelson, MM Bobber, RH Leftwich, Joan Robinson etc. He was very passionate and dedicated to his subject and had magic in his lecture. He was extremely perfectionist and constructed lively figures and diagrams on the blackboard. He used to be so engrossed in the art of drawing that we could see him smeared all over with white chalk, after the end of each lecture. He, more often, gave us assignments involving several complex diagrams to judge our grasp of the subject. He left the department to join Zakir Husain Delhi College, Delhi University. He remained on the Academic Council of Delhi University for five years (1987-92) and contributed substantially to its deliberations. A prolific writer, he brought out more than a dozen authoritative and comprehensive textbooks, designed for the undergraduate and postgraduate students of Economics, Commerce and Management. All his books are widely acknowledged and immensely popular among students and teachers alike.

Dr O P Mahajan did his MA(Economics) from Punjab University and PhD from Kurukshetra University, under the able supervision of Dr Vikas Mishra on the burning theme 'Regional Economic Development in India-1951 -61'. He taught us an optional paper titled 'Agricultural Economics'. Since I came from a farming family, this paper, was my natural choice. My specialisation in this paper stood me in good stead while carrying out my PhD work relating to an agrarian economy and the allocation of land and other farm resources under optimum solutions by using the Linear Programming Model. Dr Mahajan was a versatile and vibrant teacher. He was a skilled communicator and quite jovial and witty as well, who could burst us into peals of laughter even amid serious and learned lectures. His lessons were interspersed with anecdotes and live examples making learning a joyful activity. He had done monumental and commendable research work in the field of regional growth studies. Despite his physical handicaps, his indomitable spirit never deterred him from discharging his duties and responsibilities. Dr Mahajan was perhaps among a small number of teachers in India, who so regularly attended the annual conferences of the 'Indian Economic Society' being organised in all different parts of India. I also accompanied him and Dr S Kaushal of the same department several times to participate in these conferences. He was a very popular figure among delegates and office bearers of the Society. He also headed the Department of Economics during 1984-86. He, for a brief stint, joined the Department of Economics at Garhwal Central University, Uttarakhand, but returned to his parent department at Kurukshetra and remained here till his superannuation.

Dr R K Jain, an alumnus of Jadavpur University, West Bengal, was a diligent and assiduous teacher. He taught us two papers on Statistics- a subject which, at once, was naive to many of us. Initially,

the derivation of complex statistical formula somewhat puzzled us, but we could overcome the fear, and the subject soon became enjoyable. Dr Jain's step-by-step method of problem solving was fantastic. He, more often, applied diverse statistical techniques to solve real-life practical problems. He had an extraordinary mastery over the subject and his capacity to make a dull subject like statistics to an interesting one was phenomenal. Later, I found statistics not only quite handy in the execution of my research work, but also proved very helpful to me in securing gainful job as a Research Officer in the 'Economic and Statistical Organisation Haryana, at Chandigarh. However, I didn't avail this offer as in the meantime I got a teaching job at Sri Aurobindo College, University of Delhi. Dr Jain could be seen always with a new book on statistics. A book authored by M R Spiegel was one of his favourite books. His ever-smiling bespectacled face made us confident in comprehending the intricacies of the subject of statistics. I found him quite pragmatic, scintillating and stimulating. He later left for USA to pursue his PhD, and the department thus lost a quality and brilliant teacher.

It may be mentioned that besides these seven teachers mentioned above, Dr K B K Rao and Dr P C Jain also taught those students of our class who had opted for Public Finance, in place of Agricultural Economics. Dr Amar Singh and Dr R Lal also engaged our classes as a stop-gap arrangement.

Summing up, the Department of Economics at Kurukshetra University got a big leap and acceleration under Dr Vikas Mishra's towering personality. It was, palpably, an exhilarating experience for me to be part and parcel of this department for several years. There I imbibed valuable and healthy practices from all my teachers. It was a golden era for the Department in terms of academic ambience. The department then fostered a composite culture which helped us to grow with values. Time and money had never been a issue with our teachers, as they had put their heart and soul into learning. I fondly cherish the sweet memories of my eminent, sterling, professionally recognised and accomplished teachers, who epitomised all the traits of a quality teacher. My recollection of those days spent under their tutelage, more often, fills me with nostalgia. I remember my revered and venerable teachers, who by now have merged into the universe, with utmost gratitude. They have left behind a rich legacy that constantly inspires and nudges me to perform better and still better even at 80. I also wish, on the auspicious occasion of Teachers' Day, the Department of Economics (my *alma mater*) to further grow well.

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Book Review

From Microcosm to Macrocosm: A Succinct Panorama

Haritma Chopra* and Nupur Chawla**

Patwardhan, Bhushan and Ramchandani, Indu (2024). ***Genome to Om: Evolving Journey of Modern Science to Meta-Science,*** **New Delhi: BlueOne Ink, PP 495, Rs. 799/-.**

The book *Genome to Om* is a breakthrough in the modern world of fast-paced advancement. I call it a breakthrough because it introduces an approach, which might have existed subliminally in the social conscience, but it needed to be spelt out explicitly. And this book does exactly that. Here, the question arises: what is it that the book makes evident? In a world plagued with various divisive tendencies, this book foregrounds an integrative and cohesive approach to building a bright future for humanity. Talking of integration and cohesion, the next question that comes up is what is it that must be brought together? This book brings together science and progress with spirituality. It brings together different disciplines and planes of existence as it blends ethics with technology, encouraging one to harmonize progress and traditional values. The book highlights the need to integrate the microcosm (symbolized by *Genome*) with the macrocosm (symbolized by *Om*). This approach permeating the book, is much needed in the world today. In the day and age when wars, communal tensions, climate change and other similar challenges confront humanity, this book carries a crucial reminder to reconnect and reintegrate different aspects of life and values.

When I read the title of the book, a question came to my mind– who would be the readers of this book?

The renowned mathematician and father of library science, S.R. Ranganathan has said, "Every book has a reader". Here one may ask, who is the intended reader of this book– a scientist, a Vedic philosopher, an economist, a researcher of spiritual thought? The answer to this question seems to take shape as the reader progresses from one chapter to the next. The first chapter discusses the marvels of science and technology which would resonate with scientists, historians and researchers. The next chapter discusses the perils of advancement, which would draw the attention of environmentalists, industrialists, policymakers and researchers in the field of agriculture and farming. The third chapter discusses the origin of cosmos and life. This is bound to engage those interested in philosophy and the ones who are intrigued by essential questions of life. The fourth chapter dwells on the question of what life is, from the standpoint of society and spirituality. A sociologist and an anthropologist shall find crucial insights here. In the fifth chapter, the authors discuss what the is mind; concepts such as consciousness, perception, thought, and emotion are explored in a scientific and spiritual framework. This is a must-read for the youth of society. They will understand the significance of being aware of one's emotional states and manage them better. By now, the reader of this review might have got the impression that the book caters to industry experts alone. But that is not true. Chapters six, seven, eight and nine engage with the questions of the purpose of human existence, death, and the need to respect individuality while integrating diversity in some kind of a unified whole.

So, this journey through the nine chapters establishes a new paradigm; the book is not intended for *any* given reader, instead, it is a book for *every* reader.

Significantly, the authors present a much-needed intervention in the current debates on advancement and sustainability. At a time when the world is acknowledging the need for sustainable development, this book discusses *how* to achieve this global goal. Equipped with wisdom from

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**Assistant Professor, Department of English, Maitreyi College New Delhi - 110021*

Ancient Indian Knowledge Systems, the authors seem to reconnect human endeavor with Vedic insight.

Here, I'd like to share a nugget of wisdom from the book. Referring to ancient Indian knowledge, the authors discuss the Vedic concepts of *anubhava* (experiential knowledge) and *anubhuti* (sensory and emotional response). These concepts present a unified approach to the quest for knowledge and truth. This also resonates with the new approach to education outlined in the National Education Policy--2020, which is premised upon both experience and holistic development.

It would not be incorrect to say that a wholesome approach is at the centre of this book's vision. While it integrates different disciplines and realms of life, Patwardhan's novel idea of *Ayugenomics*, combines Ayurveda and yoga offering a holistic approach to overall wellbeing.

Towards the end, I'd say that in a world where attention spans are progressively shrinking and advancement is happening at a lightning pace, this book introduces a moment of pause. It makes the reader halt and introspect, making her/him conscious of the consequence of each event. At another level, another remarkable facet of the book is that it is truly secular. Staying clear of religiosity or rhetoric, the book brings together perspectives from different religions. It also establishes how Vedic wisdom has influenced the West. It must be stated that this is a much-needed book that introduces a hopeful vision for the future of humanity and science.

Transitioning from Anthropocene to *Omcene*, a new concept introduced by the authors, this book presents a holistic and succinct argument in favour of oneness, inculcating respect for diversity.

❑

AIU Invites Expression of Interest for Collaborative Research Studies in the Session 2024

The AIU has been engaged in conducting policy research in various domains of higher education to support the Government of India in designing policies and to help Indian universities improve their systems. Every year we take up different topics/problems/issues to conduct Research Studies either in-house or in collaboration with one of the member universities. This year we have identified the topic "**Underrepresentation of Women in Leadership Positions: A Critical Study** as a minor research study in collaboration with one of the member universities.

While women make up a significant portion of the academic workforce, their presence in senior leadership roles remains limited. This underrepresentation of women in leadership positions in higher education in India is a critical issue that undermines the potential for academic excellence, innovation, and equity in universities. With concerted efforts, we all need to change the scenario.

We, therefore, invite collaboration from the member Universities/ Institutions to conduct the study as a Minor Research Project. The study is expected to identify the barriers hindering women's advancement in higher education leadership and provide a basis for developing targeted policies and interventions aimed at promoting gender equality.

Terms and Conditions

i. The study will be conducted jointly by AIU and the selected partner university. The details of terms and conditions will be communicated in the selection of the proposal.

ii. The research study is of the current financial year ending on **March 31, 2025**, so the Project should be submitted by the end of February 2025.

iii. The ceiling of funding for the collaborative project shall be a maximum of Rs. 50,000/-. However, the selection of proposals and allocation of funding amount will be decided by a Committee duly constituted for the purpose, after assessing the financial requirements based upon the nature and scope of the project.

iv. Before the commencement of the Project a MoU shall be signed between AIU and the Collaborating institutions.

v. Mere submission of a proposal does not necessarily qualify for selection and financial allocation.

AIU Member universities/institutions interested in conducting collaborative research study are invited to send their Expression of Interest through email in the enclosed proforma duly endorsed by the Vice Chancellor by **October 20, 2024**, to Dr Sistla Rama Devi Pani, Head, Research Division to the E-mail: *researchaiu@gmail.com*. Mobile No: 09582573719 OR 011-23230059 Extn: 240.The details can also be downloaded from AIU Website: *www.aiu.ac.in*

Proforma for Proposal

1. Name of the University…….....

2. Name of the Researchers/Faculty members associated with their Contact details (E-mail & Mobile) and Experience

   1. ……..…….....

   2. ……..…….....

   3. ……..…….....

3. Rationale of the study. Give an Abstract in 300 words.

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4. The Scope of study in terms of region to be covered, No of Institutes, National/ International.

   …….....

5. Data Sources …….....

6. Methodology to be adopted…….....

7. Time Lines (Please give month-wise Pert Chart/ Gantt Chart) …….....

   ……..…….

8. Financial Requirements (Please give item-wise details) …….....

   …….....

9. Proposed Impact of Study…….....

   ……..…….....

Signature of the Principal Investigator

Endorsement of Vice Chancellor

THESES OF THE MONTH

SOCIAL SCIENCES

A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of August-September, 2024)

Business Administration

1. Rajeswar, K A Surya. **An analysis of time series and forecasting stock market using hybrid machine learning based optimization**. (Dr. Selvi Rajendran P), Department of Business Administration, Hindustan Institute of Technology & Science, Chennai.

Commerce

1. Jan, Nusrath. **Maternal healthcare financing schemes in Jammu & Kashmir: An empirical assessment**. (Prof. Mohi Ud Din Sangmi), Department of Commerce, University of Kashmir, Srinagar.
2. Modhvadiya, Ranjit Karsan. **A comparative study of financial performance of selected real estate companies in India pre & post Real Estate (Regulation & Development) Act, 2016**. (Dr. Nirmalsinh D Zala), Department of Commerce, Saurashtra University, Rajkot.
3. Patel, Vaishaliben Chaturbhai. **A pragmatic analysis of financial distress in selected Indian companies**. (Dr. Deepak Raste), Department of Commerce, Gujarat University, Ahmedabad.
4. Prasad, Pawan. **Emerging dimensions of cash management in industry with special reference to industrial units located in North Bengal**. (Prof. Dipen Roy), Department of Commerce, University of North Bengal, Darjeeling.
5. Rathod, Vishal Mayabhai. **A study of impact of leverage on capital structure and EPS of the top ten pharmaceutical companies in India**. (Dr. Nirmalsinh D Zala), Department of Commerce, Saurashtra University, Rajkot.
6. Rehal, Poonam. **A study on job satisfaction of employees in tourism & hospitality sector of Himachal Pradesh**. (Dr. Anil Kumar Pal and Dr. Vaibhav Verma), School of Management & Commerce, Alakh Prakash Goyal Shimla University, Shimla.
7. Sandeepa, G. **Opportunities and challenges of agriprenuership in Karnataka: A study**. (Dr. K S Sarala), Department of Commerce, Kuvempu University, Shankaraghatta.
8. Vasava, Payal Maheshkumar. **Analysis of financial statements of selected co-operative dairies with reference to Surat District**. (Dr. R V Raval), Department of Commerce, Gujarat University, Ahmedabad.

Economics

1. Bhatt, Meera Hasmukhray. **An economic analysis of effects of technological advancements on consumers' buying behaviour: With special reference to Saurashtra Region**. (Dr. Sanjay A Pandya), Department of Economics, Saurashtra University, Rajkot.
2. Meniya, Shobhnaben Kaljibhai. **Examining sustainable development goals in context to Gandhian thought**. (Dr. Nareshbhai Chauhan), Department of Economics, Gujarat Vidyapith, Ahmedabad.
3. Patadiya, Anjnaben Dharamshibhai. **An economic analysis of clock industry: In context of Morbi District**. (Dr. Lalit L Chauhan), Department of Economics, Saurashtra University, Rajkot.
4. Sathwara, Priyankaben Jitendrakumar. **Evaluation of solid waste management in Ahmedabad City (By contingent valuation method)**. (Dr. Nimishabahen Shukla), Department of Economics, Gujarat Vidyapith, Ahmedabad.

Education

1. Abha Kumari. **Interpersonal relationship, academic stress and self-efficacy of senior secondary school students**. (Dr. Sushil Kumar Singh), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.
2. Akhter, Anjum. **Administrative behaviour, leadership effectiveness and decision-making style of administrators of professional institutions in Kashmir**. (Dr. Aasia Maqbool), Department of Education, University of Kashmir, Srinagar.
3. Ankita Kumari. **Effect of blended learning on achievement in science, learner satisfaction and higher order thinking skills of secondary school students**. (Dr. Vikramjit Singh), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

4. Bashir, Rozia. **Parental encouragement, academic resilience and educational aspirations of higher secondary school students**. (Dr. Najmah Peerzada), Department of Education, University of Kashmir, Srinagar.

5. Bhimsen, Navinchandra Rayubhai. **A study of present status of primary education in the coastal area of Valsad District**. (Dr. Dipuba H Devada), Department of Education, Gujarat Vidyapith, Ahmedabad.

6. Bhojani, Darshini Rasiklal. **A study of attitude of upper primary school students towards arts and effectiveness of the remedial programme**. (Dr. Nidatt P Barot), Department of Education, Saurashtra University, Rajkot.

7. Bihola, Simaben Manuji. **A study of primary education in North Gujarat**. (Dr. Sitaram P Deshmukh), Department of Education, Gujarat Vidyapith, Ahmedabad.

8. Fatima, Sana. **Neurological determinants of learning disability and its psycho-social correlates**. (Dr. Madhu Singh), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

9. Indumathi, S. **Impact of information, education and communication on knowledge, attitude and practice of food safety in school going adolescents of Etawah District (UP)**. (Dr. Mahak Sharma), Department of Allied Health Sciences, Manav Rachna International Institute of Research and Studies, Faridabad.

10. Juma, Hamis. **Reinventing the Black Box: Reflections and perspective of assessment in teacher education programmes in the fourth industrial revolution**. (Dr. G S Patel), Department of Education, Gujarat University, Ahmedabad.

11. Jyoti, Prabha. **Educational aspiration, teacher professionalism and institutional professionalism for quality research at post-graduate level**. (Dr. Nimisha Srivastava), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

12. Kanzariya, Lalit Panchabhai. **Construction and effectiveness of the problem solving program for selected units of the social science subject at the upper primary level**. (Dr. Nidatt P Barot), Department of Education, Saurashtra University, Rajkot.

13. Lone, Showkat Ahmed. **Attitude towards e-learning, learning styles and study habits of university students**. (Dr. Javeed Ahmad Puju), Department of Education, University of Kashmir, Srinagar.

14. Minj, Benilalit. **Awareness of social media, critical thinking skills and self-esteem of higher secondary school students of Jharkhand**. (Dr. Ignatius Topno), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

15. Minj, Kalyanus. **Educational modernization, academic stress and adjustment of higher secondary Oraon students of Surguja Division**. (Dr. Ignatius Topno), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

16. Patil, Manisha Vitthal. **Enhancing English grammar skills of tribal students through music at the secondary level**. (Prof. Sujata Srivastava), Faculty of Education and Psychology, M S University of Baroda, Vadodara.

17. Priyadarshini, Ekta. **A study of misconceptions in science among students of standard VIII of Ranchi District**. (Prof. R C Patel), Department of Education, M S University of Baroda, Vadodara.

18. Rathod, Srushti Jayantibhai. **Role of school, society and guardians in formulating literacy talent of students**. (Dr. Nitinkumar Dhadhodara), Department of Education, Gujarat Vidyapith, Ahmedabad.

19. Samuel, Nirmala. **Perception of academic and administrative audit, performance appraisal and teaching competency of prospective teachers**. (Dr. Ignatius Topno), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

20. Sangita Kumari. **Perception of secondary school teacher towards digital platforms, pedagogical skills and mental health**. (Dr. Sushil Kumar Singh), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

21. Shobha. **Pedagogical issues, classroom climate and attitude towards teaching English among government secondary school teachers**. (Dr. Vikramjit Singh), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

22. Singh, Amrita. **Effect of Synectics Model of teaching on linguistic creativity, writing skill and achievement in English at secondary school stage**. (Dr. Madhu Singh), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

23. Surbhi. **Study of metacognitive skills and psychosocial well-being among secondary school students in relation to their digital indulgence**. (Dr. Sapna Suman), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

24. Vinita Kumari. **Madhyamik Vidyalaya ke vidhyarthioan ka aatam saman, bahu-koshal anuparyog tatha shaikshik uplabdhi**. (Dr. Sapna Suman), School of Educational Training & Research, St. Xavier's College of Education, (Autonomous), Digha Ghat, Patna.

25. Zala, Ravirajsinh Ankubha. **A study of opinions of trainees of teacher's training colleges about online education system**. (Dr. Nidatt P Barot), Department of Education, Saurashtra University, Rajkot.

Home Science

1. Sumera. **Obesity among female university students in Kashmir and the impact of dietary intervention on its management**. (Dr. Naila Irshad), Institute of Home Science, University of Kashmir, Srinagar.

Journalism & Mass Communication

1. Priya, Sweta. **Role of social media in political communication among Indian youth**. (Dr. Pranav Singh), Faculty of Professional Studies, Rama University, Kanpur.

2. Smita Kumari. **Role of newspapers in promoting government schemes for empowerment of women: A study of Madhya Pradesh**. (Dr. Rakhi Tiwari), Department of Mass Communication, Makhanlal Chaturvedi National University of Journalism and Communication, Bhopal.

Law

1. Anita. **A critical study of the role of protection officer under the protection of women from Domestic Violence Act, 2005: A study with special reference to Solan district of Himachal Pradesh**. (Dr. Lokesh Chandel), School of Legal Studies & Research, Alakh Prakash Goyal Shimla University, Shimla.

2. Bisht, Ajay Kumar. **Information Privacy Law: With special reference to the Personal Data Protection Bill, 2019**. (Prof. Sreenivasulu N S), Department of Law, The WB National University of Juridical Sciences,Salt Lake City, Kolkata.

3. Gohel, Bhikhubhai Jivanbhai. **Bail is a rule and jail is an exception: A study with special reference to human rights jurisprudence in India**. (Dr. Om Prakash Pandey), Department of Law, Saurashtra University, Rajkot.

4. Kejriwal, Shruti. **A study of the status of women in religious laws of the SAARC Nations**. (Prof. G Chakraborty), Department of Law, University of North Bengal, Darjeeling.

5. Raj, Omlata. **The women's right to reproductive autonomy: An Indian perspective (A critical analysis)**. (Dr. Shakuntala), Department of Law, Dr Ram Manohar Lohiya National Law University, Lucknow.

Library & Information Science

1. Gandhasiri, Naresh. **The role of university libraries in providing materials for competitive examinations to the users in Telangana**. (Dr. Ch Ravi Kumar), Department of Library and Information Science, Osmania University, Hyderabad.

2. Kharakor, Deity. **Role of public libraries in imparting health and agriculture literacy in rural areas of Khasi Hills of Meghalaya**. (Prof. Bikika Laloo), Department of Library and Information Science, North Eastern Hill University, Shillong.

3. Kolthuri, Kiran Kumar. **A study on web-based library services with particular reference to university libraries in Telangana**. (Prof. V Chandrasekhar Rao), Department of Library and Information Science, Osmania University, Hyderabad.

4. Navghare, Ramakant Amar. **Application of open source software in academic libraries of Arts, Commerce and Science college of Maharashtra**. (Dr. Yogesh Parekh), Department of Library and Information Science, Gujarat University, Ahmedabad.

5. Nimmarajula, Padmarani. **INFLIBNET porgrams and university library services in Hyderabad**. (Dr. Ch Ravi Kumar), Department of Library and Information Science, Osmania University, Hyderabad.

6. Patel, Kamleshbhai Jagdishbhai. **Role of academic libraries in advocating and promoting open educational resources: An exploratory study with special reference to CFTIs in India**. (Dr. Yogesh Parekh), Department of Library and Information Science, Gujarat University, Ahmedabad.

7. Srilatha, G. **Information resources and services available to humanities scholars: A study**. (Dr. M R Murali Prasad), Department of Library and Information Science, Osmania University, Hyderabad.

8. Suneetha, A D. **Use of information sources and services of the university libraries of Veterinary and Animal Sciences in India: A study**. (Dr. Ch Ravi Kumar), Department of Library and Information Science, Osmania University, Hyderabad.

9. Thukaram, Khetavat. **Use of open access resources by the faculty members at central universities in Hyderabad: A study**. (Dr. Ch Ravi Kumar), Department of Library and Information Science, Osmania University, Hyderabad.

Management

1. Gandhi, Amar Vijay. **A study of green marketing practices adopted by hotels & resorts in major cities of Gujarat: A critical appraisal**. (Dr. Hardik Bavishi), Department of Management, Indus University, Ahmedabad.

2. Ganguly, Indranil. **Impact of job satisfaction on performance of workers with special reference to tea industry in West Bengal**. (Dr. Anil Kumar Pal and Dr. Deepak Srivastava), School of Management & Commerce, Alakh Prakash Goyal Shimla University, Shimla.

3. Kamle, Deepali. **Impact of social capital formation on weavers entrepreneurship development in Maharashtra**. (Dr. Nisha Pandey), Department of Management Studies, S.N.D.T. Women's University, Mumbai.

4. Kanagat, Vartika. **Applications of HR scorecard in higher educational institutions in India: A study of a selected university**. (Dr. Sunita Sharma), Faculty of Management Studies, M S University of Baroda, Vadodara.

5. Nisha. **The manufacturing competitiveness of India & China: A comparative study using Double Diamond Theory**. (Dr. S N Mahapatra), Department of Management Studies, Deenbandhu Chhotu Ram University of Science and Technology, Murthal.

6. Ravikumar, J S. **A Study on impact of user-generated online reviews with references to travel and tourism industry**. (Dr. Syed Mohammad Ghouse and Dr. T Narayana Reddy), Department of Management, Jawaharlal Nehru Technological University Anantapur, Ananthapuramu.

Physical Education & Sports

1. Luxmi. **Multi-variate analysis of physical, psychological and anthropometrical variables of Kabaddi and Kho-Kho players**. (Dr. Suniti), Department of Physical Education, Chaudhary Ranbir Singh University, Jind.

2. Parmar, Daxaben Laxmanbhai. **A comparative study of body composition, locomotor skills and academic achievement of the students of Vidhyaniketan and Vidhyabharati schools of Gujarat State**. (Dr. Jatin H Soni), Department of Physical Education, Saurashtra University, Rajkot.

Political Science

1. Shah, Mirza Umar Mukhtar. **Between secularism and Hindu nationalism: A study of RSS's idea of India**. (Dr. Anjum Ara Shamim), Department of Political Science, University of Kashmir, Srinagar.

2. Shah, Mubashir Ahmad. **India-Pakistan relationship during military regimes in Pakistan**. (Prof. Gull Mohd Wani), Department of Political Science, University of Kashmir, Srinagar.

3. Singha, Sanjoy Dulalchandra. **Gandhi Smarak Nidhi, New Delhi: Role in constructive work (1948-2014)**. (Dr. Prem Anand Mishra), Department of Gandhian Studies, Gujarat Vidyapith, Ahmedabad.

Psychology

1. Shikari, Monika Kaushikbhai. **Social skills and risk-taking behavior among problematic and normal internet users in middle and late adolescence**. (Prof. B D Dhila), Department of Psychology, Children's University, Gandhinagar.

2. Vazifdar, Kashmira. **Mediated self-talk and arts-based therapy as facilitators of social-emotional adjustment in children with special educational needs**. (Dr. Anuradha Sovani), Department of Psychology, S.N.D.T. Women's University, Mumbai.

Social Work

1. Kapila, Radhika. **Influence of virtual connectivity on employees health & wellbeing**. (Prof.M N Parmar), Department of Social Work, M S University of Baroda, Vadodara.

Sociology

1. Ahir, Jagruti Rambhai. **Socio economic impact of tourism industry on Kutch**. (Dr. J M Nayak), Department of Sociology, Saurashtra University, Rajkot.

2. Hossain, Babul. **Marital status and mortality in India: A demographic and socio-economic analysis**. (Prof. K S James), Department of Population Studies, International Institute for Population Sciences, Deonar,.

3. Meda, Ravi. **Impact of policy interventions and modernization on Baiga Tribes**. (Prof. D K Verma), Department of Sociology, Dr B R Ambedkar University of Social Sciences, Indore.

4. Ritu Rani. **Understanding the association between household air pollution due to solid fuel use and health of older adults in India**. (Prof. P Arokiasamy), Department of Population Studies, International Institute for Population Sciences, Deonar,.

5. Shaw, Subhojit. **Climate anomaly, vegetation stability and child mortality in India: A spatial and temporal approach**. (Prof. Aparajita Chattopadhyay), Department of Population Studies, International Institute for Population Sciences, Deonar,.

Tourism & Hospitality Services

1. Ali, Mukhtar Bin Farooq Ibni. **Evaluation of host community attitude towards tourism development in Jammu & Kashmir**. (Dr. Reyaz Ahmad Qureshi), Department of Management Studies, University of Kashmir, Srinagar.

2. Nengnong, Evarisa M. **Tea tourism in Assam and Meghalaya: An exploratory study**. (Prof. S K Dixit), Department of Tourism and Hotel Management, North Eastern Hill University, Shillong.

3. Sharma, Sanjiv Kumar. **An assessment and development of service quality framework of homestay in Sikkim**. (Dr. Praveen Rizal), Department of Hospitality and Tourism Management, SRM University, Kattankulathur, Chennai. ❑

Hu. Bahirji Smarak Vidyalaya Education Society, Wapti's
Bahirji Smarak Mahavidyalaya, Basmathnagar, Dist. Hingoli

WANTED

Applications are invited from the eligible candidates for the following Assistant Professors posts to be filled in **Hu. Bahirji Smarak Vidyalaya Education Society, Wapti's Bahirji Smarak Mahavidyalaya, Basmathnagar, Dist. Hingoli on GRANT BASIS**. Eligible candidates should submit their applications alongwith all necessary documents **within Fifteen Days** from the date of publication of the advertisement by Registered Post Only. The candidates of Reserved Category should submit one copy of their application to the Assistant Registrar (Special Cell), Swami Ramanand Teerth Marathwada University, Nanded by **Registered post only.**

Sr. No	Subject	Post	No of Post	Reservation
1	Economics	Assistant Professor	01	ST, OBC
2	Political Science	Assistant Professor	01	

As per Govt. decision Dt. 25 Jan, 2024 Parallel Reservation or Horizontal Reservation

Sr. No.	Parallel or Horizontal Reservation	No. of Post
01	Women Candidates	01

Permission as per NOC No. JDHE Nanded/NOC/2024/37, Dt.12.09.2024.

Essential Qualification:- (A or B)

Minimum educational qualification for the post of Assistant Professor will be as per Regulations of UGC (2018) and G.R. of Govt. of Maharashtra dt. 08 March, 2019.

A. 1. A Master's degree with 55% marks (or an equivalent grade in a Point- scale wherever the grading system is followed) in a concerned/ relevant/allied subject from an Indian University, or an equivalent degree from an accredited foreign University.

2. Besides fulfilling the above qualifications, the candidate must have cleared the National Eligibility Test (NET) conducted by the UGC or the CSIR, or a similar test accredited by the UGC, like SET or who are or have been awarded a Ph.D. Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil/Ph.D. Degree) Regulations, 2009 or 2016 and their amendments from time to time as the case may be exempted from NET/SET:

Provided the candidates registered for the Ph.D. Programme prior to July 11, 2009, shall be governed by the provisions of the then existing Ordinances/Bye-laws/Regulations of the Institution awarding the degree and such Ph.D. candidates shall be exempted from the requirement of NET/SET for recruitment and appointment of Assistant Professor or equivalent provisions in Universities/Colleges/Institutions subject to the fulfillment of the following conditions:

a) The Ph.D. Degree of the candidate has been awarded in regular mode only;
b) The Ph.D. thesis has been evaluated by at least two examiners;
c) An open Ph.D. viva voce of the candidate has been conducted;
d) The candidate has published two research papers from his/her Ph.D. work, out of which at least one is in a referred Journal; and
e) The candidate has presented at least two papers, based on his/her Ph.D. work in conferences / seminars, sponsored /funded /supported by the UGC/ICSSR/CSIR or any similar agency.

Note:

1) The fulfillment of these conditions is to be certified by the Registrar or the Dean (Academic affairs) of the University concerned.
2) NET/SET shall also not be required for such Masters Programmes in disciplines for which NET/SET is not conducted. However, Ph.D degree shall remain the minimum eligibility for appointment of Assistant Professor in such disciplines.

OR

(contd. on pg. 42)

(contd. from pg. 41)

B. The Ph.D. degree has been obtained from a foreign university/institution with a ranking among top 500 in the World University Ranking (at any time) by any one of the following:

(i) Quacquarelli Symonds (QS) ;

(ii) the Times Higher Education (THE) or

(iii) the Academic Ranking of World Universities (ARWU) of the Shanghai Jiao Tong University (Shanghai)

Note: The Academic score as specified in Appendix II (Table 3A) for Universities, and Appendix II (Table 3B) for colleges, shall be considered for short-listing of the candidates for interview only, and the selections shall be based only on the performance in the interview.

Salary & Allowances: Pay Scale as per UGC, State Govt. of Maharashtra & S.R.T.M. University, Nanded rules from time to time.

Note:

01. Prescribed application form is available on the University **website: www.srtmun.ac.in.**
02. No T.A./D.A. will be paid to attend the interview.
03. Eligible candidates those who are already in service should submit their applications through proper channel.
04. All attested Xerox copies of certificates & other relevant documents should be attached with the application form.
05. According to Govt. rules, 30% and 4% seats will be reserved for women and handicapped persons respectively.
06. Relaxation of 5% marks at P.G. level for SC/ST candidates only.
07. The vacancies of Assistant Professors will be filled subject to conditions of the decision in writ petition No.12051/2015 pending in Hon'ble High Court Judicature of Bombay, Bench at Aurangabad.

Address for correspondence:-
The Secretary, Hu. B. S. V. E. Society, Wapti,Tq. Basmath, Dist. Hingoli.
C/o. Bahirji Smarak Mahavidyalaya, Basmathnagar Dist. Hingoli - 431512

President **Secretary**

Hu. Bahirji Smarak Vidyalaya Education Society, Wapti, Tq. Basmath, Dist. Hingoli

PRITI ACADEMY EDUCATION SOCIETY'S

PRITI ACADEMY LAW COLLEGE

Kalyan, Murbad Road, Mharal – 421301

MINORITY

APPLICATIONS ARE INVITED FOR THE FOLLOWING POSTS FROM THE ACADEMIC YEAR 2024-25:

UN – AIDED

Sr. No	Cadre	Subject	Total No. of Posts	Category
01	Principal	Law	01	01-OPEN
02	Assistant Professor	Law	04	04-OPEN
03	Librarian	Law	01	01-OPEN

The above posts are open to all, however candidates from any category can apply for the post.

Reservation for women will be as per **University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ ICC/2019-20/05 dated 05th July, 2019.**

Candidates having knowledge of Marathi will be preferred.

"Qualification, Pay Scales and other requirement are as prescribed by the UGC Notification dated 18thJuly, 2018, Government of Maharashtra Resolution No. Misc- 2018/C.R. 56 / 18/ UNI – 1, dated 8th March, 2019 and University Circular No. TAAS/ (CT)/ICD/2018-19/1241, dated 26th March, 2019 and revised from time to time."

The Government Resolution & Circular are available on the **website: mu.ac.in.**

Applicants who are already employed must send their application through proper channel. Applicantsare required to account for breaks, if any, in their academic career.

Application with full should reach the **TRUSTEE / SECRETARY, PRITI ACADEMY LAW COLLEGE Kalyan Murbad Road Mharal – 421301 within 15 days** from the date of publication of this advertisement. This is University approved advertisement.

Sd/-
Trustee/Secretary

WANTED

Applications are invited from eligible candidates for the post of Principal (Granted) at **Dnyanopasak Shikshan Mandal's, College, Jintur**. Application along with necessary documents **within Fifteen days** from the date of publication of the Advertisement by R.P.A.D. only.

Sr. No	Name of post (Designation)	No. of Post	Full Time	Reservation	Period
1.	Principal	One (01)	Full Time	Unreserved	5 Years

a) **Education Qualification :** A Master's Degree with a least 55% marks (or an equivalent grade in a point scale whenever grading system is followed) by recognized University. A Ph.D. Degree in concerned/ allied/ relevant discipline(s) in the institution concerned with evidence of published work and research guidance. Professor/Associate Professor with a total experience of fifteen years of teaching/ research in Universities, College and other institutions of Higher Education. A minimum of 10 research publication in peer reviewed or UGC listed Journals. A minimum 110 research score as per Appendix II, Table 2 of UGC Regulations 2018. Academic Eligibility and other Rules Regulations as per UGC Regulation 18 July 2018 and Govt. Resolution No. Misc-2018/C.R.56/UNI-1 Date 08 March, 2019.

b) **Tenure :** A College Principal shall be appointed for the period of five years, extendable for another term of five years on the basis of performance based assessment, a committee appointed by the University, constituted as per rules of UGC and Govt. of Maharashtra.

c) **Salary & Allowances :** Pay Scales shall be given as per the rules of UGC, State Government & Swami Ramanand Teerth Marathwada University, Nanded.

NOTE : 1. Prescribed application form is available on the University **website: (www.srtmun.ac.in**). **2.** No TA/DA will be paid for attending the interview. **3.** Eligible candidates should submit their application through proper channel. **4.** Attested Xerox copies of S.S.C. certificates, Degree certificate, Mark sheets etc. should be attached to the application form. **5.** The original certificates must be provided at the time of interview. **6.** The vacant post is being under the decision of Hon. High Court, Aurangabad Bench petition No.12051/2015.

Address:
The President, Dnyanopasak Shikshan Mandal's
Arts, Commerce and Science College, Jintur**, Dnyangiri Campus, Yeldari Road, Tq. Jintur Dist. Parbhani (MS) 431501**

President/Secretary
Dnyanopasak Shikshan Mandal, Parbhani

WANTED

Applications are invited from eligible candidates for the post of Principal (Granted**) Dnyanopasak Shikshan Mandal's, College, Parbhani.** Application along with necessary documents **within Fifteen days** from the date of publication of the Advertisement by R.P.A.D. only.

Sr. No	Name of post (Designation)	No. of Post	Full Time	Reservation	Period
1.	Principal	One (01)	Full Time	Unreserved	5 Years

a) **Education Qualification :** A Master's Degree with a least 55% marks (or an equivalent grade in a point scale whenever grading system is followed) by recognized University. A Ph.D. Degree in concerned/ allied/ relevant discipline(s) in the institution concerned with evidence of published work and research guidance. Professor/Associate Professor with a total experience of fifteen years of teaching/ research in Universities, College and other institutions of Higher Education. A minimum of 10 research publication in peer reviewed or UGC listed Journals. A minimum 110 research score as per Appendix II, Table 2 of UGC Regulations 2018. Academic Eligibility and other Rules Regulations as per UGC Regulation 18 July 2018 and Govt. Resolution No.Misc-2018/C.R.56/UNI-1 Date 08 March 2019.

b) **Tenure :** A College Principal shall be appointed for the period of five years, extendable for another term of five years on the basis of performance based assessment, a committee appointed by the University, constituted as per rules of UGC and Govt. of Maharashtra.

c) **Salary & Allowances :** Pay Scales shall be given as per the rules of UGC, State Government & Swami Ramanand Teerth Marathwada University, Nanded.

NOTE : 1. Prescribed application form is available on the University **website: (www.srtmun.ac.in**). **2.** No TA/DA will be paid for attending the interview. **3**. Eligible candidates should submit their application through proper channel. **4.** Attested Xerox copies of S.S.C. certificates, Degree certificate, Mark sheets etc. should be attached to the application form. **5.** The original certificates must be provided at the time of interview. **6.** The vacant post is being under the decision of Hon. High Court, Aurangabad Bench petition No.12051/2015.

Address:
The President, Dnyanopasak Shikshan Mandal's
College of Arts, Commerce and Science, Parbhani, **Dist. Parbhani (MS) 431401**

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